AN EXPLORATION OF VIOLENCE, AGGRESSION, AND ABUSE EXPERIENCED BY PSYCHIATRIC NURSING STAFF FROM PATIENTS AT WORK

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ABSTRACT

Chapter one gives some background information regarding the definitions of violence, aggression and abuse; the prevalence of these issues in psychiatric inpatient services, and sets up the aims of the thesis.

Chapter two starts with a systematic review of the literature that has evaluated current training courses offered to psychiatric nursing staff, to manage or prevent violence, aggression, or abuse. This review synthesised a small body of research, and yielded tentative but positive results. It shows that some positive change is achievable with targeted training, and in some cased, violence instances can be reduced.

Following this, chapter three is a mixed-methods research study which explored two aims: firstly the lived-experiences of forensic nursing staff to explore how they come to conceptualise 'abuse' from service-users; and secondly whether forensic psychiatric staff appraise abuse differently from the public. The research showed that the conceptualisation of abuse is complex and subjective, and is influenced by personal perceptions as well as systemic factors. In general, staff demonstrated a higher threshold for abuse as compared to a public sample. This research gives important clinical insight into the perspective of staff in this setting, and offers recommendations for future research to develop this further.

Chapter four assesses the psychometric properties of the Aggression Questionnaire-12 (AQ-12; Bryant & Smith, 2001) as it is a widely used measure of aggression in psychiatric services. Although there are many measures of aggression, this tool demonstrated superior psychometric

properties, and has shown to be a reliable and valid measure of aggression within forensic inpatient populations (Van Dam-Baggen & Kraaimaat, 1999; Hornsveld, Muris, Kraaimaat & Meesters, 2008).

The AQ-12 is used in Chapter five, which is a single case study of an aggressive male offender who is residing in a low secure locked rehabilitation unit. The case study evaluated the effectiveness of an individual needs-led aggression-management intervention. This case study offered an insight into the service-user perspective on inpatient aggression, and there are recommendations made for future research and practice.

THESIS OVERVIEW

The following thesis consists of four chapters each linked by one common theme; the abuse suffered by nursing staff, from service-users, when working in forensic and mental health services. The aim of this thesis is to develop a wider understanding of mental health inpatient working, particularly when it comes to the aggression, violence, and abuse that occurs often within these services (Department of Health, 2012). This thesis examines the existing literature about what provisions there are for staff to help manage or prevent abuse from service-users; it explores staff perspectives and experiences of these incidents; it details a case study of a service-user who is abusive towards staff in a psychiatric setting and evaluates an aggression management intervention; and it critically evaluates a psychometric tool commonly used to measure aggression within psychiatric settings.

The thesis starts with a systematic review of the existing literature with the aim of determining what current training is offered to psychiatric nursing staff, and what is shown to be effective. This review synthesised a small but growing body of research with the aim to explore which factors training targets (such as knowledge, skills, attitudes etc.), and which are effective and clinically helpful for staff. The results can help inform the development of future training.

Following this a primary research study in chapter three explores how frontline staff in a forensic psychiatric service, come to conceptualise abuse from service-users. This is explored through a qualitative exploration of staff's lived-experiences and analysed using interpretative

phenomenological analysis. In addition, the research explores whether forensic psychiatric staff conceptualise abuse, particularly around their threshold, differently to a public sample. This is explored via a short, online, single-vignette study which is quantitatively explored. It is recommended that future research and practice are made to conclude this chapter.

Assessing aggression in forensic psychiatric populations is a core part of a forensic psychologist's role and usually is done with psychometric measures alongside clinical reports and risk assessments. The Aggression Questionnaire-12 (Bryant & Smith, 2001) has been a widely used psychometric tool for assessing aggression in offending populations. This chapter evaluates the psychometric properties of this tool across different population groups, cultures, and ages, including forensic psychiatric inpatients. This tool was also used in the single case study, as an outcome measure to assess differences in aggression pre and post-intervention

The case study presents one male psychiatric service-user who has a history of aggression and abuse against forensic psychiatric nursing staff. This study summarises the assessment, formulation, and treatment planning of this case. It evaluates the outcomes of an individually-tailored, needs-led intervention. This intervention is aimed at reducing aggression, increasing self-esteem, and increasing adaptive problem-solving abilities. The AQ-12 is used as one of the outcome measures to assess changes in aggression post-intervention. Further recommendations are made for future treatment and research. This thesis concludes with a summary of the findings from each chapter, evaluates the limitations of the work conducted, and makes recommendations for future work.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICIES

CHAPTER 1: INTRODUCTION TO THESIS

1.1 Introduction to thesis

Violence and abuse against mental health nursing staff has made mainstream media news and has been brought into the spotlight by reports which highlight the increasing problem within UK mental health systems (Tinson et al., 2016; Elliott 2016; Campbell, 2017a). The Care Quality Commission (2017) reported that 40% of NHS mental health services were rated as 'requires improvement' or 'inadequate' in relation to safety, specifically citing poor resources and staffing as core issues. In particular, the reduction in resources is having a negative impact upon the safety of forensic psychiatric services, where there are increasing reports of abuse and violence against nurses and nursing support staff (frontline staff).

In the current economic climate, funding to NHS services, particularly NHS mental health organisations has been reduced despite NHS England's 'Five Year Forward View for Mental Health' (NHS England, 2016) having called for spending to be increased on mental health services, and to be brought in line with budget increases (Forster, 2017). For example, the number of adult inpatient psychiatric beds reduced by 39% overall in the years between 1998 and 2012 (NHS England, 2016). These reports are suggesting that such cuts to resources and services are contributing to making the existing problem of violence against nurses much worse (UNISON, 2017). Although it is noted that reports by organisations like UNISON may have a vested interest in reporting such figures, the academic research has also supported this claim over time (Shah, 1993; Gudjonsson, 1999; Jackson, Clare & Mannix, 2002).

Research by the Rowntree Foundation (Tinson et al., 2016) shows a current increase in demand for access to mental health services as well as a drop in resources to accommodate this. Eighty percent of NHS senior managers are concerned that the ”huge gap” between the rapidly increasing demand for services and the shortage of resources will result in an “inability to provide timely, high-quality care to the growing numbers of people seeking mental health support” (Campbell, 2017a). This in turn is leading to more incidents of people reaching crisis point before contact with mental health services, which consequently means that people are becoming more acutely unwell before being able to access services. For inpatient psychiatric services, this has contributed to an increase in violence, aggression, and abusive behaviours seen from inpatients (Bowers, Steward, Papodopoulos, Dack, Ross, Khanom & Jeffrey, 2011), which is becoming an increasing problem for staff working in these settings (NHS England, 2016; UNISON, 2017; Pekurinen et al., 2017).

Research shows that service-users and staff attribute increased violence in psychiatric inpatient services in part to a lack of resources leading to a reliance on non-regular staff, which creates conflict with service-users (Bonner, Lowe, Rawcliffe, & Wellman, 2002). Stevenson (1991) and DeBel (2003) suggest that as the therapeutic relationship between regular staff and service-users are lost, so are some of the key therapeutic components needed in order to provide effective de-escalation (Stevenson, 1991; DelBel, 2003), which is suggested as the primary method of violence reduction by the NICE guidelines (National Institute for Health and Care Excllence, 2015). These include aspects such as knowing yourself, knowing the service-user, knowing the situation, and knowing how to communicate. A key component

of a good de-escalator is that they dedicate time to developing relationships with service-users (Berring, Pederson & Buss, 2016), which speaks to the importance of retaining experienced and regular staff teams. However, with the recent increase of temporary staff, challenging behaviours are more often escalating to aggression, violence, or abuse (Bonner et al. 2002). In specialist services like forensic psychiatric inpatient services, there are additional complexities such as knowing the procedural security of forensic settings, understanding risk and the legal implications, understanding how to communicate with people experiencing complex mental health difficulties, as well as the management of aggressive, violent, or abusive behaviours (Sequeira & Halstead, 2004).

There is a body of literature that examines the theory and research regarding characteristics of staff, such as empathy, de-escalation skills, and personal control which may increase or reduce the risk of aggression, violence or abuse (Pompeii et al., 2013; Berring et al., 2016). Research has shown that characteristics of service-users may increase their risk of aggression, violence, or abuse, such as gender or drug use (Pompeii et al., 2013; Iozzino, Ferrari, Large, Nielssen & De Girolamo, 2015). Similarly environmental factors such as openness of spaces and noise levels have been considered important in either increasing or reducing this risk (Shattell, Andes & Thomas, 2008; Pompeii et al., 2013; Olsson, Audulv, Strand & Kristiansen, 2015). Although there is much research that investigates the causes of service-user aggression, violence, and abuse, there remains a relative lack of focus on the other side of this issue. Namely the impact and consequences violence, aggression, and abuse has on staff who are experiencing these issues increasingly frequently in a job where they are

expected to provide healthcare as well as having to manage service-user and staff safety (Lupton, 2013). The nursing role in these settings has become more primarily focused on upholding safety (Lupton, 2013) and adopting a custodial role (Loukidou, Ioannidi & Kalokerinou-Anagnostopoulou, 2010). Some have argued that this undermines nature of nursing practices and creates a discourse in which these behaviours are expected, thus confusing the psychiatric nursing role (Slemon, Jenkins & Bungay, 2017).

The research that has started to explore this topic from staff's perspective highlights issues such as: staff feeling a lack of training to manage these behaviours; staff feeling pulled into risk management, which detracts from their primary role of providing healthcare; and staff believing that abuse is now part of the psychiatric nursing role (Kindy, Peterson & Parkhurst, 2005; Bowers et al, 2011; Slemon et al., 2017). For these reasons, part of this thesis aims to further investigate and evaluate what training is available to psychiatric nursing staff, and to understand how their lived experiences contributes to how they make sense of the phenomenon of service-user-to-staff abuse.

1.1.1 Conceptual differences among terms

Often the terms aggression, violence, and abuse are used interchangeably, particularly in clinical practice (Marshall, 1994); however researchers have attempted to draw out distinctions whilst acknowledging some overlap (Morgan & Wilson, 2005). This is a challenging task for researchers, not least because different organisations work to their own understandings but also because generally researchers agree that there must be a level of

subjectivity and an acknowledgement of cultural, societal, and contextual considerations (Dailey, Lee & Spitzberg, 2013). As this thesis is concerned with the exploration of violence, aggression, and abuse in the specific context of psychiatric inpatient services and against psychiatric nursing staff, each of the terms will be discussed below with consideration of their clinical context and the theoretical context.

1.1.2 What is violence?

One of the difficulties in researching violence and abuse against nurses in psychiatric settings, is that the definitions of these terms are so varied and numerous within the literature and across different organisations and populations. The literature also offers a variety of definitions depending on the stance and context surrounding the issues. For example, what the definition is used for (e.g. clinical safeguarding, research purposes), or which organisation is using the definition (e.g. NHS hospitals, academic researchers etc.).

The World Health Organisation (WHO) defines violence as, "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation" (World Health Organization, 2002, p.4), and offers a list of potential behaviours that class as violence. This definition highlights not only the use of actual physical harm but threatened and actual power over groups; interpretations of which could extend to, for example, gang violence or threatening oppression of ethnic or maligned groups. This definition draws attention to resultant psychological harm and

non-normal development which, although similar to what might constitute results of abuse, excludes acts of omission, exclusion, or neglect. Therefore, it might be considered that acts of violence can be considered abuse, but not all abuse is violent. This in itself highlights one of the difficulties in defining violence as even given definitions can be interpreted depending on the lens through which they are used. For example, the legal framework used by the NHS for reporting and recording purposes defines physical violence as "the intentional application of force against the person of another without lawful justification, resulting in physical injury or personal discomfort" (NHS Protect, 2017, p. 62). This definition highlights the need for actual harm or discomfort to be present, but what constitutes discomfort is open to interpretation. The WHO and the legal framework here offer definitions of violence that help to situate the concept in a broader societal context and within the NHS context pertinent to this thesis.

More specifically to health care professions, the Health and Safety Executive (HSE) define violence as "any incident in which an employee is abused, threatened or assaulted in circumstances relating to their work" (Heath and Safety Executive, 2003, p.1), which is a definition that has been adopted by NHS England in their safeguarding policy documents. Here the definition of violence includes within it the term 'abused', showing how these terms are sometimes used in order to describe each other, thus compounding the challenge of defining separate constructs. Violence and aggression are also often interchangeably used. Anderson and Bushman (2002) make the distinction that violence is aggression that has extreme harm as its goal, and that all violence is aggression, but many instances of aggression are not violent.

Some psychological and sociological theorists have understood violence as a complex phenomenon and seek to widen the definition of what is considered violence. Rutherford Zwi, Grove and Butchart (2007) have attempted to create a 'glossary' of terms for what they consider the major types of violence, some of which include interpersonal violence, collective violence and sexual violence, and in doing so demonstrated the complexity of defining violence as single overarching term.

Nonetheless, it is important for the reader to have an understanding of how violence is conceptualised and defined in the literature because the term is used throughout this thesis. In summary violence is considered distinct from abuse in that is a tangible act that causes harm to another. In chapter two, the term violence is used with regard to evaluated violence prevention training programs for nursing staff in psychiatric services, wherein each study uses its own conceptualisation of violence in regard to harm to staff. As the lens is clinical work, violence is broadly defined as 'acts of violence' which are often recorded as 'incidents' in clinical settings, and is certainly the language used in the studies included in the review. In chapter three, violence is not specifically defined because it is not the research aim; rather the aim is to understand how victims of 'abuse' make sense of their experiences. In this chapter the term violence may be less focussed as one is unable to be sure exactly what participants are referring to, and they are likely not using an academic definition but using a socially constructed version of the term as a way in which give context to their experiences of being harmed, and conceptualisations of 'abuse'. In chapter five, violence is a term used to describe the physical actions of a psychiatric inpatient

which have caused actual harm and is defined by the hospital reporting procedure that also relies on the victim's subjective experience

1.1.3 What is aggression?

As above, the definition for the term 'aggression' is varied and is usually context-dependent. Anderson (2000) stated that human aggression is "behaviour performed by one person (the aggressor) with the intention of harming another person (the victim), who is believed by the aggressor to be motivated to avoid that harm" (Anderson, 2000, p.163). In short two clear roles are necessitated: an aggressor, and someone who is "motivated to avoid harm". This suggests that aggression is in part determined by the victim.

Linsley stated that there are no unanimously accepted theories of aggression in healthcare, and attempts at describing aggression are "both diverse and often influenced by the professional discipline of the protagonist offering the explanation" (Linsley, 2016, p.23). Research by Liu (2004) on the concept of aggression in mental health nursing suggested that aggression can include physical violence and verbal abuse, and also concludes that to some degree aggression is "comorbid with mental disorder" (Lui, 2004, p.694). Of course, those who experience mental health problems are not intrinsically aggressive, but may also present as aggressive as a consequence of being in a mental health service. As above, even literature examining specific concepts such as aggression include violence and abuse and use the terms interchangeably. Liu though, made the distinction that aggression and violence in mental healthcare settings tends to be accepted by the dominant discourse as being more tangible and

observable incidents (e.g. "instrumental" or "proactive"), whereas what constitutes abuse is more subjective and it may not result in physical harm (Lui, 2004, p.696).

The NICE organisation has produced guidance for healthcare professionals to manage aggression and violence in mental health settings (NICE, 2015). Within the NICE document aggression is described as "a range of behaviours or actions that can result in harm, hurt or injury to another person, regardless of whether the violence or aggression is physically or verbally expressed, physical harm is sustained, or the intention is clear" (NICE, 2015, p.6). This definition is more focused on behaviour "regardless of whether… the intention is clear", which suggests that the intention does not have to be a certainty, but rather is defined in relation to the subjective experience of the victim. These definitions adopt a phenomenological stance, putting the victim's perception at the heart of the experience, and thus aggression could be viewed as abusive by the victim. This stance is adopted in the research chapter of this thesis.

Olson (2016) described the term aggression in broader terms as "any act that is intended to or perceived to intend to do harm to another through the use of force" (Olson, 2016, p.1). Olson (2016) suggested that aggression can include but is not limited to the use of physical force and emotional or psychological maltreatment. As noted previously, this is problematic since a broad definition such as this is not clearly distinguishable from definitions of violence or abuse. Some researchers have suggested that aggression can be conceptualised as an emotional or psychological concept that is closely linked to hostility. This seems over-simplistic as it disregards physical acts

of aggression, although may be useful for the purpose of developing tools and psychometric measures for specific constructs (Pennington, Gillen & Hill, 1999). In this thesis one such measure of aggression (AQ-12; Bryant & Smith, 2001) is considered to explore this further.

Other researchers have attempted to distinguish the term aggression by the intentionality of the act (Spitzberg, 2011); however, 'intent' is subjectively determined thus making it all the more challenging to measure, define, and objectify. Furthermore as Olson noted, intent can include perceived intent (Olson, 2016), once again saying that aggression is in large part subjectively conceptualised by the victim.

As with violence, the literature offers several definitions of aggression and it is important for the reader to have a conceptual and theoretical understanding of the term aggression as it is used throughout this thesis. Similarly to violence, the research on aggression distinguishes the term from 'abuse' in that aggression is an act intended to cause psychological or emotional harm, whereas 'abuse' is the interpretation of the aggressive act. In chapter three, psychiatric nursing staff's experiences of abuse are explored and the term aggression is used at times to describe their experiences. In chapter four of this thesis, the theoretical construction of aggression is understood in relation to the Agression-Questionnaire-12 (AQ-12; Bryant & Smith, 2001) which suggests four constructs are important to assess aggression; physical aggression, verbal aggression, anger, and hostility. This same measure was used in a single case study in chapter five, to assess reductions in aggression of a service-user before and after an intervention.

1.1.4 What is abuse?

When it comes to defining 'abuse', the literature is even more equivocal. As detailed above, given that experiences of abuse are seen as subjective to each individual, it has proven difficult to define the term in research. As a result authors have often treated abuse as an umbrella term with multiple sub-categories contained within, including violence and aggression. For example, the Social Care Institute for Excellence (2015) document on safeguarding adults offers categories of abuse rather than a single definition. These include: physical; domestic; sexual; psychological; emotional; financial; material; modern slavery; discriminatory; organisational; institutional; neglect; acts of omission; and self-neglect. The NHS guidance on safeguarding adults uses a similar approach of listing categories to define abuse, and they include: sexual; psychological; physical; domestic; discriminatory; financial abuse; and neglect (NHS England, 2015). A report looking at all reported incidents from UK NHS trusts defined non-physical violence as "the use of inappropriate words or behaviour causing distress and/or constituting harassment" (NHS England 2015, p.2). They acknowledge the difficulties this definition poses "it is difficult to provide a comprehensive description of all types of incidents that are covered under this definition". However, they also offer some indication of what constitutes non-physical violence in the NHS: verbal abuse and swearing (including offensive gestures); attempted assault; behaviour that would constitute public disorder; or threats and other forms of malicious communication (NHS England, 2015, p.2).

Luck, Jackson and Usher (2006) discussed the theoretical understandings of abuse towards nurses, and concluded that the discourse in healthcare

settings has a large influence on the working definition of abuse, essentially stating that the definition of abuse is driven by the social construction of the subjective experiences of a team. The social constructionist perspective views abuse as "not a single kind of activity, but rather a socially defined category of activities that share some common features" (Blume, 1996, p.9). Abuse, then, could be defined as how an individual experiences or interprets such acts. Abuse as it takes place can be viewed as a social phenomenon whereby the accounts of abuse are made up of what Scott and Lyman (1968) call 'naturally occurring conversations' in which people attempt to make sense of an experience. Scott and Lyman (1968) therefore adopt the position that abuse occurs if the victim perceives that it has. In this way the constructs of abuse, violence, and aggression diverge on the idea that one commonality to understanding these terms, is that the subjective experience is the recipient is important.

The literature shows that there is not a widely understood or shared definition for abuse, just as there seems to be no shared consensus about defining aggression or violence. In general the literature shows that context and experience are important factors, and that perhaps violence and aggression speak to more tangible acts whereas abuse is more considered a subjective conceptualisation of such acts, that is dependent on the victim experience, context, and social factors (Luck, Jackson & Usher, 2006). For example there may be a difference between the objective description of an act and the subjective experience of it; where an observer may consider abuse to have occurred but the victim does not feel abused. Further, not all abuse must be violent or aggressive, for example discrimination, but an act

of violence or aggression can be considered abusive if the victim experiences it as such.

In this thesis abuse will be considered an overarching term that may incorporate violence and aggression and considers the victim's subjective experience to be central to conceptualising abusive acts. Abuse is seen as a phenomenon that must be understood within the social context and discourse of mental health nursing. As the research in chapter three sought to explore how people conceptualise abuse, it was important to allow staff to explore and make sense of their experiences; therefore definitions of abuse were not provided so as not to constrict the data to fit the researcher's preconceived ideas or definitions.

In short, violence and aggression can be seen as actions, whereas abuse is defined by the interpretation of these actions by the victim which can include violence and aggression, regardless of whether intent is actual or perceived. Abuse is distinct from violence and aggression in this way.

1.1.5 What is the extent of the problem?

In England and Wales it is estimated that around a quarter (Department of Health, 2012) to a third (Skills for Care, 2013) of those who work in all nursing healthcare professions experience abuse at work from service-users. Of those nurses who experience abuse at work, around 93% experience verbal abuse and 56% experience physical abuse. When looking specifically at mental health staff, levels of recorded violence have been as high as 80%which is double the prevalence of violence in other clinical nursing

sectors (Dack, Ross, Papadopoulos, Stewart & Bowers, 2013). A recent meta-analysis showed that one fifth (20%) of service-users on psychiatric units commit at least one act of violence during their hospitalisation (Iozzino et al., 2015); in forensic psychiatric units this figure is doubled (Bowers et al., 2011).

In 2014 there was a nine percent increase in abuse reported across the NHS nursing profession, with mental health services reporting the largest number of assaults and abuse (Merrifield, 2017). The number of violent incidents alone rose from 33,620 in 2012-2013, to 42,692 in 2016-2017 (Campbell, 2017b), with mental health settings in England experiencing the most substantial increases (according to freedom of information requests to all NHS bodies across the UK). A UK-wide report by NHS Protect (2017) was commissioned to collect and analyse the incident-report data across all NHS Trusts. The data for the mental health sector showed an increase in violence each year between 2010 and 2015, starting with 2,788 incidents in 2010-2011, and increasing to 10,273 by 2014-2015. The total number of incidents of abuse (physical violence and non-physical violence) rose from 39,321 in 2010-11 to 45,220 in 2014-15. Reports (Robinson & Grant, 2017) indicate that in the past five years (2012-2017) this number has continued to rise.

In 2017 UNISON undertook and reported the results of a survey conducted across the UK and across several mental health organisations (UNISON, 2017), including secure and community mental health settings, with over half of respondents being nursing or nursing support staff (frontline staff). Over a 12-month period (September 2016-September 2017), 42% of staff

reported being a victim of abuse or violence which shows a large increase from previous years; this figure was 24% in 2012 (Department of Health, 2012). Despite the increasing rates of reported abuse towards nursing staff in psychiatric settings, an abundance of reports and research papers agree that this number is unlikely to accurately reflect actual levels of violence, and is not a true representation of other kinds of abuse.

Much of the research on workplace violence in healthcare has indicated that people in forensic, acute, and general mental healthcare settings experience some of the highest rates of violence at work compared to other healthcare settings (Bowers et al., 2011). In particular, those in the psychiatric nursing profession are at risk of being physically and emotionally abused at work by service-users (Delaney, Clearly, Jordan & Horsfall, 2001; Dack et al., 2013). A literature review regarding UK inpatient violence and aggression (Bowers et al., 2011), showed forensic services to have the highest rates of violence compared to other services.

As described above, the research suggests that the numerous and varied definitions of violence and abuse are one of the primary barriers to effective research in this area (May & Grubbs, 2002; Cahill et al., 2004; Cairncross & Kitson, 2013a). It seems that each organisation, service, researcher, or individual may have a different definition, which therefore makes it difficult to understand what behaviours are considered abusive, what incidents are recorded as abuse, and what the true extent of the problem is. Inconsistency of definition is apparent within the NHS too; definitions are not consistent between NHS policies, safeguarding definitions, and individual NHS Trusts. A report by the House of Commons (2003) concluded

that, "there remains a significant level of under-reporting; many NHS Trusts are not using the standard definition promulgated by the Department [of Health]; and the information collected by the Department does not differentiate between the types and severity of incidents" (House of Commons, 2003, p.4).

The difference in definitions likely also contributes to the difference in prevalence ratings. Without clear definitions, staff members do not have a consistent understanding of what constitutes abuse, how it is categorised, and what to do when it occurs. Some research has suggested that under-reporting is in part due to psychiatric nurses not knowing what they can class as abuse when at work (Lanza, 1992; Lyneham, 2000), and not having adequate training in recognising abuse or how to manage it when it occurs. Some psychiatric nurses have also highlighted inadequate training as a contributing factor to increased violence and abuse at work (Bowers et al., 2011). Other research has indicated that abuse may not be reported for fear of repercussion, or because staff members assume no action will be taken as a result (Forrester, 2002). This demonstrates some of the issues related to having no shared, consistent understanding of what abuse is in these settings and why this is important to explore.

As well as abuse being a widespread problem, it is also one with far reaching consequences. The violence and abuse suffered by psychiatric nursing staff can lead to negative physical consequences such as injury, as well as adverse emotional effects, including anger, shock, fear, depression, anxiety, post-traumatic stress disorder, and sleep disturbance (Budd, 1999; Needham, Abderhalden, Halfens, Dassen, Haug & Fischer, 2005; Pekurinen

et al., 2017). These issues can in turn lead to more pervasive problems such as low morale, high rates of sick leave, high staff turnover, and long term sickness absences (Johnson, Croghan & Crawford, 2003). This has significant repercussions for staff, organisations, and service-users, such as an increased reliance on temporary staff which leads to reduced efficiency, reduced quality of care, and increased untoward incidents (Owen, Tarantello & Jones, 1998; Arnetz & Arnetz, 2001; Kisa, 2008). The literature highlights that there has been a 10% reduction in mental health nursing staff in the past five years, which has meant a lower level of regular and experienced staffing (UNISON, 2017). This increases the burden on remaining staff, and results in increased sickness absences (Johnson, Croghan & Crawford, 2003). This also means a greater financial cost to services, not only due to the employment of temporary staff, but because organisations are less likely to be able to accept incoming service-user referrals, which result in financial implications. Forty-two percent of all psychiatric nursing staff (UNISON, 2017) cite lower staffing levels and increased burnout (referring to feelings of hopelessness and difficulties in dealing with or doing ones job effectively), as some of the reasons precipitating to increased levels of abuse and violence at work.

This demonstrates why abuse of staff is an important topic to consider, however it is not without difficulty. As noted, the research in this area has largely focused on the extent of violence, aggression, and abuse, and the effect it has on staff. However there is a paucity of research examining the conceptualisation and experience of the individuals, in relation to the term 'abuse' and their experiences of it. Perhaps conceptualising what is meant by abuse from those who experience it first-hand can offer clinically useful

insights into how to manage the problem, and how to move toward developing a consistent definition. Some qualitative studies that have explored experience (Delaney et al., 2001; Snyder, Chen & Vacha-Haase, 2007; Nachreiner, Gerberich, Ryan & McGovern, 2007) have shown that staff members perceive assaults as an inevitable part of a career in psychiatric inpatient care, and seem to perceive aggression to be commonplace. Although staff members expect to experience it, they don't necessarily see it as part of their job to have to receive it. Consequently this may suggest that staff tolerate some behaviours, and fail to report them as abusive (resulting in under-reporting) despite perceiving these behaviours as outside of their job role. This then raises the questions: to what degree is abuse tolerated? How and what are the processes that occur to contribute to individuals tolerating abuse at work? Despite the literature identifying this phenomenon of abuse towards nurses and highlighting the fact that it is becoming increasingly frequent and problematic, the conceptualisation of how some challenging behaviours are come to be perceived as abuse, has not yet been explored and warrants further exploration.

1.1.6 What is the aim of this thesis?

This thesis was primarily concerned with exploring the topic of abuse suffered by psychiatric nursing staff at work, and as such examined this topic from several perspectives. This introduction has defined violence and aggression as an addition to abuse because they are also key concepts that arise when exploring the topic of abuse in this field, and as such it is important for the reader to have a conceptual understanding these terms for this thesis and how they are used in each chapter of this thesis.

The next chapter in this thesis comprises a systematic literature review of studies that evaluate the effects of interventions in managing aggression and violence for nursing staff in mental health inpatient settings. In these settings, aggression and violence is commonplace and is often targeted in the nursing training, as recommended by the NICE guidelines for those working with service-users with the potential for violent or aggressive behaviour (NICE, 2015). Abuse is not covered under the NICE guidelines for training healthcare staff and as such the review focuses on aggression and violence specifically. A brief initial review of the literature in this field demonstrated that the terms aggression and violence were used interchangeably in the studies evaluating these training programs, and often these terms were not defined at all, thus in this chapter the search terms included both violence and aggression.

Chapter three comprises a mixed methods primary research study, the purpose of which was to explore how a specific group come to conceptualise the term abuse, with regards to their specific environment and context, of being a psychiatric nurse working in a forensic secure inpatient hospital. In order to maintain an exploratory approach and prevent bias, the researcher refrained from providing pre-determined definitions of abuse.

The research chapter firstly quantitatively compares how a public and a clinical sample differ in their consideration of abuse, with regards to a specific inpatient scenario to determine if the term abuse is significantly differently considered as a result of the context of psychiatric inpatient nursing. Second the conceptualisation of abuse is explored qualitatively with a detailed analysis of the lived experiences of forensic psychiatric

nursing staff in order to explore how they make sense of abuse in the context of their working lives. As Luck et al. (2006) suggests a working definition of a phenomenon is co-constructed by the individuals who make up the systemic culture of the specific environment. Here the environment is a forensic secure psychiatric hospital, the systemic culture is psychiatric nursing and the phenomenon is abuse at work from patients. The participant's construction of abuse is examined, which as stated previously, could include acts of aggression and violence should the individual considered these to be abusive, but were not given as pre-conceived definitions of abuse.

In chapter four, aggression specifically is examined with regard to how a psychometric measure of aggression (Aggression Questionnaire-12; Bryant & Smith, 2001) can be used to assess aggression reliably, and the extent to which it is a valid tool to measure aggression. In psychiatric nursing settings, a psychometrically sound measure of aggression aids in identifying those service-users likely to act in such a way towards staff. Here aggression is defined by the authors of the AQ-12 as being constructed of four factors that include violence (physical violence, verbal aggression, hostility, and anger).

Finally, in chapter five aggression and violence are considered with regard to a specific case study of a male who behaves aggressively and violently in his interpersonal interactions with nursing staff. In the hospital in which this case study was conducted, the standard incident reporting system used, recorded instances of violence and aggression only. Using a single case study approach, this chapter examines the phenomena of aggression and

violence from the perpetrator's perspective, where chapter three considers the victim point of view.

The findings from these chapters will be drawn together in the final chapter that will summarise and discuss how each informs our understanding of how abuse, aggression, and violence, are experienced by psychiatric nursing staff, and how this adds to the current body of literature on how to address this increasing issue with regard to developing training, support, and systemic approaches to tackling this issue.

CHAPTER 2: SYSTEMATIC LITERATURE REVIEW

A SYSTEMATIC LITERATURE REVIEW EXPLORING THE EFFECT OF VIOLENCE AND AGGRESSION PREVENTION TRAINING FOR PSYCHIATRIC NURSING STAFF.

Abstract

AIM: This review evaluated the existing training interventions, for psychiatric nurses and nursing support staff (frontline staff), to support them in managing aggression or violence from service-users in inpatient services.

METHODS: The review included worldwide studies and accepted all research that involved nurses and nursing support staff working in psychiatric and mental healthcare settings who were part of a study in which they received training or an intervention to prevent or manage patient aggression or violence towards staff, or were in a control group.

RESULTS: Seven published studies met in the inclusion criteria and went through quality assessment. All seven were assessed to be of moderate to strong quality. The results indicated that interventions aimed at creating attitudinal change were ineffective. However, there were significant changes reported in studies that investigated the effect of interventions aimed at reducing the number of assaults, increasing knowledge, or increasing confidence.

CONCLUSIONS: Overall, this review has demonstrated that some clinically useful change can be achieved by training that aims to increase the knowledge, skill, and confidence of staff, which may have an overall effect of increasing therapeutic relationships, and reducing frequency or severity

of assaults. It is recommended that other services evaluate the effectiveness of existing training, and publish the result to build a more robust evidence-base. There is a relative lack of randomised control trails and longitudinal research in this area.

2.1 Background

The World Health Organization (WHO) defines violence as; "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation" (World Health Organisation, 2002, p.4).

Violence and aggression at work has long been a reality for health care professionals (Rippon, 2000; Anderson & West 2011). As such training is often offered to nursing and support staff who work directly on wards, to help manage or prevent, the violence and aggression they experience from service-users. This literature review examines the research that has evaluated the training offered to nursing staff, who work with service-users in psychiatric hospitals. It explores what the training targets and what the effectiveness of these training courses are in helping staff manage or prevent violence and aggression or reduce instances of violence overall.

The prevalence ratings recorded of incidents of aggression against nursing staff varies, though all show a similarly high level. A 2012 NHS staff survey (Department of Health, 2012) indicated that of all nursing staff surveyed, around a quarter (24%) experience abuse at work from service-users. Much of the research on workplace violence in healthcare has concluded that people in forensic, acute, and general mental healthcare settings experience some of the highest rates of violence at work compared to other healthcare settings (Bowers et al., 2011), and in particular, those in the psychiatric nursing profession are at risk of being physically and emotionally abused at work by service-users (Delaney, Clearly, Jordan & Horsfall, 2001;

Renwick et al., 2016). A report by UNISON (2017) indicated that incidents of aggression and violence against psychiatric nursing staff continue to rise. These numbers, although high, are not thought to be an accurate representative of the true number of incidents of this nature due to under-reporting by nursing staff (Wells & Bowers, 2002; Ipsos MORI, 2010).

Mental health wards are challenging places to work because staff care for people whose needs cannot be met by primary services alone. Secure psychiatric wards are even more demanding places to work as staff are managing additional issues such as service-user risk of harm, to themselves or others (Coid, Kahtan, Gault, Cook & Jarman, 2001). The commissioning guide for forensic mental health services has stated that those in need of forensic services, "will have a higher complexity of disorder, a higher incidence of mental illness that is resistant to treatment, and will pose a significant risk to others" (Joint Commissioning Panel for Mental Health, 2013, p.10). Research examining forensic psychiatric nurses, has shown that they are one of the most at risk groups for experiencing violence and aggression from service-users, perhaps because the service-users admitted to forensic mental health wards are referred to these services precisely because of their increased violent and offending behaviour (Coid et al., 2001; Bowers et al., 2011).

Research on workplace violence in healthcare has focused on the prevalence of violence suffered and the subsequent effect it has on staff physically and psychologically. The effects include increased incidents of staff burnout (Pines & Maslach, 1978; Edwards, Burnard, Coyle, Fothergill & Hannigan, 2000; Whittington, 2002), increased stress-related illness

(Happell, Martin & Pinikahana, 2003), symptoms of post-traumatic stress disorder (Caldwell, 1992), reduced self-esteem, increased fear, anxiety, depression, increased, mistrust and interpersonal difficulties (Gerberich et al., 2004; Rippon 2000) , long-term sickness absences, decrease in job satisfaction, high staff turnover (Ito, Eisen, Sederer, Yamanda & Tachimori, 2001), as well as a range of physical injuries to the person.

Context for violence against mental health nursing staff

In 1999, the NHS adopted a 'zero-tolerance' policy on violence against NHS staff, and campaigned to increase "staff awareness of the need to report, assuring staff that this issue would be tackled" (House of Commons, 2003, p.5). However, the same report shows that in the years following the introduction of this campaign, the figures continued to increase rather than decrease; "in 2000–2001, there were some 84,214 reported incidents of all violence and aggression against NHS staff, an increase of 30% over 1998–1999. This increase has continued in 2001–2002 with 95,501 reported incidents, a 13% increase" (House of Commons, 2003, p.6). Subsequently, this approach was questioned, particularly with its applicability to complex NHS settings such as forensic and psychiatric services. Researchers and organisations considered how to be proactive in their approach to manage violence instead.

The National Audit Office (2003) began examining the practices around workplace violence from service-users, and found substantial variation in training on both risk assessment and management of violence. Following this, the Department of Health (2003) accepted recommendations regarding mandatory training; however this was specifically in relation to

'control and restraint' training only. In the last decade there has been an increase in resources aimed at supporting staff who experience abuse at work beyond standard training. These include highlighting the need for support structures such as clinical supervision, counselling, and more comprehensive training (Kaplan, Iancu & Bodner, 2001; Bradshaw, Butterworth & Mairs, 2007; Jenkins & Elliott, 2014). There seems to remain a relative paucity of resources for preventative action.

Why is this a problem?

Workplace violence, although tolerated to some degree, as evidenced by the under-reporting of incidents discussed in the previous chapter (Erickson & Williams-Evans, 2000; Bowers et al., 2011), is a clear and extensive problem for staff. The literature shows that violence against nursing staff is so common that it has come to be viewed as 'part of the job' (Delaney et al., 2001; Snyder et al., 2007; Nachreiner et al., 2007). The adverse effects are numerous and pervasive for staff, service-users, and organisations.

For staff, the adverse effects include; adverse psychological effects, stress-related illness, physical injury, burnout, decrease in job satisfaction, and high turnover (Owen, Tarantello & Jones, 1998; Edwards et al., 2000; Arnetz & Arnetz, 2001; Whittington, 2002; Happell et al., 2003; Gerberich et al., 2004; Kisa, 2008). This is explored further in chapter 3, where staff's lived-experience of violence from service-users is examined in more detail.

For organisations, the subsequent financial cost to services is increased in order to recruit new staff, pay for long term sickness absences, and pay for agency staff to cover work (Audit Commission for Local Authorities & the

National Health Service in England, 2001; Chapman & Styles, 2006; Johnson et al., 2011). If managers are dealing with financial pressures, their ability to provide emotional support may be compromised. Some research has shown that reliance on temporary staff can also increase incidents of aggression and violence (James, Fineberg, Shah & Priest, 1990).

For service-users, temporary or agency staff can affect the continuity of their care, which in turn affects the efficiency and quality of care. Therefore, research shifted its focus to what can be done to prevent or reduce the incidents of service-user aggression against staff, with a particular interest in developing more effective violence prevention strategies.

Violence prevention and management training so far

A literature review by Bowers et al. (2011) showed that a high percentage of staff did not believe they had been trained adequately or at an appropriate time in their career to enable them to deal successfully with aggressive service-users. The literature demonstrated a general agreement that violence is prevalent in mental health nursing, and that training to help staff manage this is important. However there is a paucity of empirically evaluated and published evidence of the impact of training, and it helps staff to either reduce incidents of violence, or effect positive change in other ways, which will be discussed below.

Research has shown that receiving training increases staff confidence to manage violence at work, and this in itself has a violence reducing effect, (Collins, 1994). Qualitative research from the UK has suggested that NHS nursing staff who have an expectation of being assaulted may actually

create the effect of a self-fulfilling prophecy (Cutcliffe, 1999), perhaps through their heightened anxiety, and the increased frustration that occurs at times of challenging behaviour (Levy & Hartocollis, 1976; Lowe, 1992).

More recent research conducted in the Netherlands found that staff felt more capable of recognising environmental or situational 'warning signs' for violence, following an aggression management training course (Heckerman, Breimaier, Halfens, Schols & Hahn, 2016). The staff interviewed cited their increased confidence as important to feeling more able to prevent or lessen incidents of violence or aggression. Similarly a Canadian study found that following a training intervention, nursing staff felt more confident in their ability to manage aggression, and thus felt more able to prevent behaviour escalating to violence (Collins, 1994). Whilst education and training may not necessarily reduce nurses' exposure to violent or abusive incidents, their increased skills and confidence may translate to increased ability to manage these incidents in the early stages, which may reduce the amount of incidents of physical violence, or reduce the negative consequences (Cahill, 2008).

In a study conducted using semi-structured interviews with 102 English psychiatric nursing staff (Bond & Brimblecombe, 2004), one of the most frequently cited reasons for an increased risk of violence was a lack of communication skills (71%). Sixty-four percent of staff felt that in order to reduce the risk of assault, a calm manner, confidence, and not 'over-reacting' was important. Training and education for nursing staff aimed at increasing confidence, skills, and increasing understanding of how to

manage and react to challenging behaviour, may prevent escalations to assault, violence, or abuse.

Research has also highlighted that violence prevention, reduction, or management training has an attitudinal effect (Beech, 2001). Pre-emptive educative measures in some instances decreased nurses' attitudes that violence is inevitable or acceptable. This in turn resulted in staff feeling more empowered to prevent violence, and less helpless when experiencing violence from service-users. Staff reported feeling an increase in their self-confidence to be able to manage violence when it occurs at work, which translated to behavioural changes and changes in interactional style (Calabro, Mackey & Williams, 2002; Whittington & Higgins 2002). Results of a literature review (Bowers et al., 2011) demonstrated that "understanding the way the nurses think about the function of aggression has important consequences for the way that incidents of aggression are dealt with… and staffs' general attitudes towards aggression is a key element in the management of aggressive incidents" (p. 159).

Studies that have evaluated the impact of aggression management training programs on actual incidents of violence or aggression have demonstrated that there is a reduction overall, with most citing statistically significant reductions following training (Rosenthal, Edwards, Rosenthal & Ackerman, 1992; Needham, Abderhalden, Haug, Dassen, Halferns, & Fisher, 2004). For example, a study of student nurses in Germany demonstrated a significant improvement in their ability to reduce violence, through role-playing de-escalation scenarios (Nau, Halferns, Needham & Dassen, 2010), showing that the aggression management training was able to improve their real-

world performance in de-escalating behaviour, thus reducing instances of violence. However it is unclear which parts of the intervention were particularly useful. Similarly, a Finnish study evaluating aggression management training on an adolescent forensic unit demonstrated a reduction in the frequency and severity of assaults. The authors of this study however, attributed this to increased knowledge and skills, thus showing which parts of the training may have contributed to change (Kaltiala-Heino, Berg, Selander, Työläjärvi & Kahila, 2007). Other researchers have focused on exploring what factors contribute to change, which could inform an understanding of what works in reducing violent incidents, such as increased confidence, knowledge, and changes in attitude or perception (Rice, Helzel, Varney & Quinsey 1985; Bjorkdahl, Hansebo & Palmsteirna, 2013; Heckerman et al., 2016).

Although the importance of training to reduce violence against nursing staff is widely acknowledged, and training is implemented in some way in most psychiatric hospitals, little is known about the effectiveness, perhaps due to lack of published training evaluations. This may be because the cost of evaluating these interventions is high, or that there is a lack of knowledge, skill or resources to implement an evaluation, or that organisations fear negative results (Holt, Boehm-Davis & Beaubien, 2001). As a result there have been relatively few reviews on this topic, particularly in psychiatric settings, that have collated existing research on the effectiveness of pre-emptive interventions for psychiatric nurses and support staff.

A previous systematic review attempted to gather and evaluate existing research by reviewing the effects of aggression management training for

mental health care and disability care staff (Richter, Needham & Kunz, 2006). However, there was no assessment of the quality of the studies included, the review details were sparse, and their findings were inconclusive. Heckerman and colleagues conducted a narrative review of the literature regarding the effect of aggression management training programmes for nursing staff. However, their review was based on one acute hospital, and excluded mental health nurses (Heckerman, et al., 2014).

In the last decade, since the review by Richter et al. (2006), the NHS has been working on moving towards a 'pro-security culture' to help staff feel safe in the workplace (Ipsos MORI, 2010). In 2015 the NICE guidelines were updated from the previous 2005 version, offering guidance on how to work with violence and aggression in mental health settings (NICE, 2015). The guidelines specifically name staff training (section 1.1.5 & section 1.2.1) as an important strategy to reduce incidences of violence and aggression against staff. Therefore, a further systematic review of the research a decade later may offer a different point of view on the effects that pre-emptive training for staff might have on managing aggression and violence from service-users.

2.1.1 Aims and objectives

As explored above, the outcomes of many interventions do not solely focus on the rate of violent incidents. Although this is one of the considered outcomes for this review, the research thus far shows that training for staff can have other benefits, which may not directly reduce rates of violent incidents, but may still be useful for helping staff to cope when violence

occurs. In this way training has secondary benefits such as limiting the potential for burnout. Factors explored in previous research were used as a guide for outcomes evaluated for this review.

The aim of this review then, is to synthesise the literature of staff aggression and violence management training, identifying the aims of such training and its effectiveness in achieving these aims. It is hoped that the results might inform the development of future training for nursing staff, and contribute to the growing evidence base supporting nursing staff to manage this problem.

2.2 Review methods

2.2.1 Search strategy: sources of literature

An initial scope of the literature in 2015 identified reviews with similar questions (Doughty, 2005; Richter et al., 2006; Farrel & Cubit). However, they were conducted over ten years ago and the review from 2006 had no statement of assessing quality or validity, and was not exclusively reviewing psychiatric nursing staff. Other reviews have been conducted but have focused on other nursing professions for example, emergency department nurses (Anderson, FitzGerald & Luck, 2010; Taylor & Rew, 2011).

During an initial scoping exercise it was realised that the articles examining training in hospitals didn't specify definitions within the articles. Although it would have been useful for the authors to provide definitions for what they were considering 'violence' or 'aggression' or other terms such as 'incident', this was not provided by authors of these studies. This review did not therefore exclude studies on this base.

A full scope and systematic search of the literature was conducted in June 2017 using the strategy detailed below. The following electronic databases were used in the systematic search for relevant studies (see Appendix A for search syntax):

- AMED (Allied and Complimentary Medicine);
- BNI (British Nursing Index);
- CINAHL (Cumulative Index to Nursing and Allied Health Literature);
- EMBASE (Exerpta Medica Database);
- HBE (Health Business Elite);
- HMIC (Health Management Information Consortium);
- MEDLINE;
- PubMed;
- Psych INFO;
- The Cochrane Library (all databases).

Secondary search strategies included the following:

- Internet searching such as Google and Google Scholar (this was chosen, as it is the search engine which had the most expansive range and could generate studies which meet the inclusion criteria. This also allowed access to contact details of authors and experts in this field);
- Contacting relevant authors in this field to gain access to additional research that was unpublished or inaccessible.

2.2.2 Search strategy: selection of terms

The following is a guide to the search terms that were applied to all databases (it has been modified where necessary, to meet the

requirements of separate databases due to field differences). Table 1 shows the search terms used (see Appendix A for full search syntax).

Table 1. Search Syntax used Within the Review

Population specific	nurse
	AND
	mental health psychiatric
Intervention specific	AND
	violence prevention violence management aggression prevention aggression management violence reduction aggression reduction
Event specific	AND
	training course programme management intervention program*
Outcome specific	AND
	incident* assault* injury* knowledge* skill* confiden* burnout* illness* stress* sick* turnover job satisfaction sickness absence sick leave attitude

Population: This review included studies that examined psychiatric nursing staff as well as other populations, only if the analyses and results were reported separately, according to population, allowing for conclusions to be drawn about psychiatric nursing staff alone. By default, the population age

was limited to a minimum age of 18 years old, due to employment policy, but there was no maximum age limit.

Intervention: Studies were included if they evaluated the outcomes of training, courses, or programmes aimed at managing, reducing, or preventing violence against staff. Previous reviews (Richter et al., 2006; Heckerman et al., 2014) and NICE guidelines (2015) regarding staff training were used as a guide, in determining the search terms suitable for this review regarding interventions.

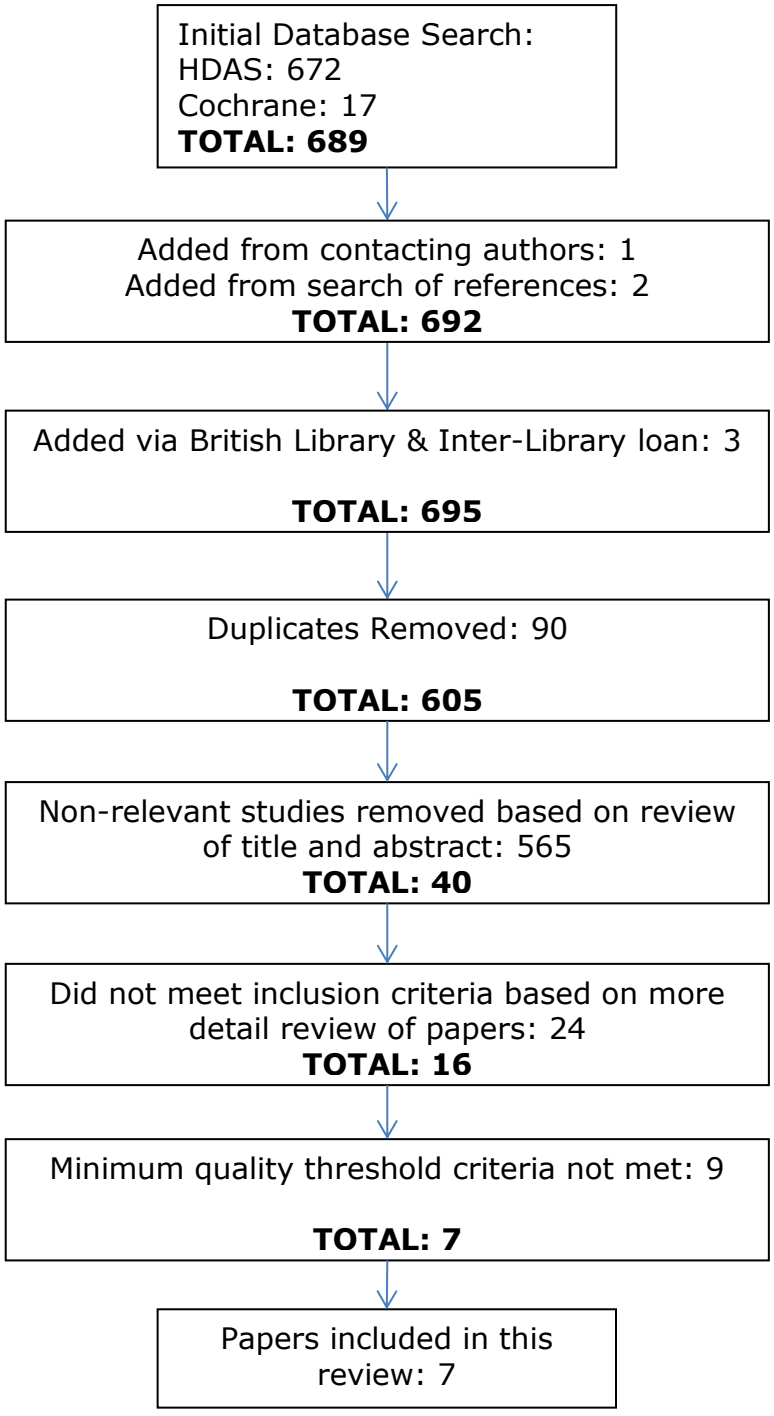
Comparison: Studies were included if they offered a comparison of results, for example comparing pre and post results, or comparing the results of an intervention group with a control group.

Outcomes: Outcomes considered in the review were increases or reductions in adverse incidents, increases or reductions in staff injury, and increases or reductions in the use of restraint and seclusion to manage aggression. The review considered other outcomes such as; changes in staff confidence, changes in knowledge/skill, changes in perceived ability to cope, changes to attitudes, increases in incidents of staff burnout, stress-related illness, high staff turnover, and decreases in job satisfaction.

2.2.3 Study selection

The selection process followed the recommended Preferred Reporting Items for Systematic Reviews and Meta-Analyses procedure (PRISMA; Liberati et al., 2009).

Figure 1. Flow Chart of Search Results



In June 2017 the database searches were conducted. On review, ninety papers were duplicates and were therefore removed. Following this a review of the titles and abstracts of the remaining 605 studies was conducted and this excluded 565 studies leaving 40 studies that fit the criteria at this stage.

Inclusion and exclusion criteria were applied to all studies retrieved through searches using pre-defined inclusion and exclusion criteria as detailed below. Subsequently the full articles of these 40 studies were reviewed and 24 further studies were found not to meet the inclusion criteria, and therefore were excluded (see Appendix B for this list of excluded studies). The remaining 16 studies were selected to go through a quality appraisal. Nine were then removed for poor quality after review of the full article, leaving seven studies (see Appendix B for this list of excluded studies). See Figure 1 for a flow chart of the search strategy.

2.2.4 Criteria for inclusion and exclusion of studies

The following criteria were used to include studies in the review:

Population: Psychiatric nursing staff.

Intervention: Training, course, intervention, or programme to manage or prevent violence or aggression against staff.

Comparison: Pre/post-training group results, or control group not receiving training.

Outcome: Qualitative or quantitative change as result of intervention.

Location: Psychiatric settings.

Study type: A range of studies with different methodologies were considered for this review, such as peer-reviewed primary research e.g. experimental research in the form of randomised control trials, non-

randomised control trials, case-control studies, and cohort studies. Due to the aim, which was to explore the effects of training on psychiatric nursing staff, there was a paucity of RCT's since the participant sampling was limited by the staff that required the training. Therefore, despite a reduced quality of design type, studies were included if they included a control group, or pre/post measures, or if they made some reference to the effect on staff as a result of the training intervention, which included effects such as; a change in the number of recorded incidents, changes in staff perceptions, and changes in staff confidence. There were no restrictions on year of publication so as to include as much research as possible. Although unpublished work was permitted if it was in press at the time of reviewing, there were no relevant unpublished works at the time of this review.

Language: Studies were included from any country however due to limited resources and language barriers, only those studies published in English and accessible from the UK were analysed for the review. Attempts were made to obtain relevant studies that were not accessible, by contacting one author (Dr Ian Needham), which resulted in one additional paper being included. One study gathered via inter-library loan was excluded as it was not obtainable in English.

The following were excluded from the review; opinion papers, reviews, editorials, and papers that could not be accessed. However all three papers that were initially inaccessible, were obtained via inter-library loan, (Paterson, Turnbull & Aitken, 1992; Shu-Li, Sing-Ling, Chin-Hong, Rong-Li & Chang, 1999; McLaughlin, Bonner, Mboche & Fairlie, 2010).

2.2.5 Quality assessment

The quality of the remaining studies was assessed in two phases:

Phase 1: Threshold criteria

- Clear description of the research objective.
- Clear definition of the population.
- Clear definition of the outcome measure used.

Papers that did not meet these criteria were excluded at this stage for not meeting the minimum quality threshold (see Appendix B for excluded studies and Figure 1 for search strategy).

Phase 2: Quality assessment forms

Using a quality assessment tool adapted from the National Collaborating Centre for Methods and Tools, (NCCMT, 2008; see Appendix D), the author and a second assessor conducted the quality assessment independently. The second assessor (a forensic psychologist in training) was provided with the quality assessment tool and asked to give an overall rating. Overall ratings were then compared. Where there was a difference in the rating of the quality of a study (e.g. one assessed the study overall as 'weak' and another as 'moderate'), the assessors determined if this was due to an oversight or missing data, a difference in interpretation of the criteria, or a difference in the interpretation of the study.

Two studies required further discussion based on diverging interpretations of the criteria for only one item in each study. This occurred when at least one assessor rated an item on the tool as 'undecided' rather than 'yes', 'possibly', or 'no'. Some of the item questions necessitated a subjective opinion which is where differences of opinion arose between assessors for

example, on the clarity of expression in the paper. A consensus on the overall rating of these two papers was reached through discussion, for both articles (see Appendix E). As each quality assessment form requires eight individual ratings to conclude one overall rating for the study, and there were seven studies to assess, each assessor made a total of 56 ratings. As there were only differences on two out of the total 56 items, inter-rater reliability was calculated at 96.4%. Altman (1991) indicates this to be a good level of percentage agreement between assessors.

2.2.6 Data extraction

A pre-defined data extraction pro-forma was used to extract the data from the studies prior to synthesis (see Appendix C). The form was designed with reference to PRISMA and the Cochrane Library, to specifically reference the inclusion and exclusion criteria designed for this review. Information relating to each item was explicitly recorded to reduce potential errors and bias. The following information was extracted:

- Descriptive information, to inform the overall description of the studies reviewed e.g. country, setting etc.;
- Study aims or research questions to determine if the authors set out to investigate the effect of training on staff characteristics or incident rates or whether this effect was observed as a by-product of what was investigated;
- The design of the study (e.g. RCT, cohort, quasi-experimental, control group etc.);
- The independent variables (e.g. intervention);
- The dependent variables (e.g. outcomes);

- Sample information to examine any bias in findings and to explore differences in studies based on their samples:
    - The size of the sample;
    - Attrition rates;
- Methodological information to assess the consistency of results from studies:
    - Recruitment methods;
    - Data collection methods;
- Intervention observed;
- Outcome measure used (e.g. psychometric measures, incident forms etc.);
- Type of outcomes observed (e.g. knowledge, confidence, incidents etc.), and the statistical or clinical significance, if any;
- And analysis methods.

2.3 Results

2.3.1 Assessment of heterogeneity & data synthesis

Due to the nature of the review and its exclusion and inclusion criteria, the data extracted were heterogeneous. Although the data were homogenous with regard to participant sample, the data differed in terms of interventions administered, outcomes measured, data collection methods, and study design. Therefore, it was not possible to conduct a meta-analysis. For these reasons, a tabulated and qualitative synthesis of results was conducted. Following the quality assessment of the seven studies, the results were synthesised qualitatively. Table 2 summarises the descriptive characteristics of the seven studies.

2.3.2 Characteristics of the studies

A total of 568 participants were included in this review, within seven different studies. Six of the studies were cross-sectional in nature and one was longitudinal (retrospective). All studies used a pre-post design with three studies using one-group design and four studies using a two-group design. All studies used repeated measures. Six of the studies included nurses and nursing support workers only as their participants; and one study included other mental health professionals as well as nurses. This study was included, as the results pertaining to the nursing group were reported separately. The included studies originated from the UK (one study), Australia (two studies), Switzerland (two studies), Italy (one study), and India (one study). Of the seven studies, only one looked at demographic information and therefore it is unknown how many participants were male and female overall. All studies were conducted in psychiatric hospitals and on psychiatric inpatient wards. Two of the studies conducted an intervention that was educational in nature, and the other five had both an educational and a practical component to the intervention (practice of physical restraint, self-protection strategies, self-defence techniques, and breakaway techniques).

Two studies examined the frequency of assaults as a variable; one used a hospital-standard annual report to retrieve data on frequency and severity of reported assaults, and the other gathered the number of assaults on a daily basis from the wards, over the assessment period. Other variables measured in these studies were diverse, and were assessed using questionnaires or psychometrics that required participant self-report. These included: knowledge (two studies); confidence (two studies);

previous participation in training (two studies); attitude (one study); perception and tolerance of aggression (one study); adverse feelings towards patients (one study); and reason for patient aggression (one study).

Table 2. Characteristics and Findings from the Studies

Authors and Year of study	Location and Setting of study	Study Design	N & Type of participants	Intervention	Measure used & Recording methods	Variables	Findings
Muthuvenkatac-halam, Chetana, Kaur, Joshi, Negi, & Sonika (2014)	India Psychiatric hospital	Cross-sectional: • Opportunity sampling • 1 group • Pre-post • Repeated measures	30 Nurses: (n=12), Nurse assistants (n=18)	Educational: • 1-day • Aggression management	• Knowledge Questionnaire (19-item multiple choice questionnaire) • Self-report • Immediately pre and post intervention	• Knowledge	The scores on the Knowledge questionnaire were statically significantly improved post-training on 4 facets of the questionnaire (causes, signs, prevention, and management of aggression)
Magnavita (2011)	Italy Psychiatric hospital	Longitudinal: • Retrospective • Opportunity sampling • 1 group • Pre-post • Repeated measures	94 Nurses: (n=84 in 1999; increasing to n=94 by 2009)	Educational: • 4 hours • Aggression minimisation	• Violent Incident Form (Italian version) • Self-Report • Voluntary • Data collected annually	• Frequency of assaults • Severity of assaults • Reason for patient aggression/assaults • Confidence of staff • Use of restraint and seclusion	Assault frequency reduced significantly in the year following the intervention. In the following 6 years there was a stable and slight decline. Assault severity was reduced following the intervention. The average number of 'consequences' following assault was reduced post-intervention. Prior to intervention the reason for patient aggression was cited as 'lack of training' in 59% of the sample. Post intervention this was not cited as a reason at all. 88% of staff reported increased confidence in their own skill post-intervention.
Hahn, Needham, Abderhalden, Duxbury, & Halfens (2006)	Switzerland Psychiatric hospital (6 wards)	Cross-sectional: • Quasi-experimental • 2 groups • Pre-post • Repeated measures	63 Nurses: Intervention (n=29) Control (n=34)	Educational & Physical/practical: • 5 -day • Aggression management	• German version of the Management of Aggression and Violence Attitude Scale (MAVAS) • Self-report • Voluntary • 1 week pre, 3 month post intervention	• Attitude • Demographic factors	No significant attitude differences at baseline (pre) between groups No significant attitude change post intervention (within groups or between groups). No significant attitude change at three-month follow up. There were no significant differences in the demographic information between groups.
Needham, Abderhalden, Halfens, Dassen, Haug, Fischer (2005)	Switzerland Psychiatric hospitals (6 wards)	Cross-sectional: • Randomised control trial • 2 groups • Pre-post • Repeated measures	58 Nurses: Intervention (n=30) Control (n=28)	Educational & Physical/practical: • 5-day • 20x50 min lessons • Aggression management	• -Perception of Aggression Scale (POAS-S) • -12 item Tolerance Scale • -Impact of Patient Aggression on Carers Scale • Self-report • Voluntary • Immediately pre and 3 months post intervention.	• Perception of aggression • Tolerance of patient aggression • Adverse feelings of carers towards patients	At baseline there were no differences between groups for all three variables. Post-intervention there was no change in the intervention group for all three variables. There were no significant differences between the intervention and control groups post intervention.

Ilkiw-Lavalle, Grenyer, & Graham (2002)	Australia Psychiatric hospitals (4 sites)	Cross-sectional • Opportunity sampling • 1 group • Pre-post • Repeated measures	103 Nurses (n=42) Allied health workers (n=18) Ancillary staff (n=37) Ward security (n=6)	Educational & Physical/practical: • 2-day • INTACT aggression management	• INTACT Knowledge evaluation (14 item questionnaire) • Self-report • Voluntary • Immediately pre and post intervention	• Knowledge on aggression management • Previous participation in training	All staff significantly improved following training with nurses having the highest scores (pre and post intervention). Although greater overall improvements were made by nurses with no previous training, nurses with prior aggression management training had slightly higher post-evaluation scores. Those with prior training had relatively low pre-training scores indicating that regular training is necessary. This was corroborated by the qualitative report from staff advocating the need for regular and ongoing training.
McGowan, Wynaden, Hardling, Yassine, & Parker (1999)	Australia Psychiatric hospitals (3 sites)	Cross-sectional • Opportunity Sampling • 2 group • Pre-post • Repeated measures	70 Nurses: Pre group (n=70) Post group (n=15)	Educational & Physical /practical: • 22.5 hours • 6 modules • Safe physical restraint	• 10-item self-report questionnaire measuring confidence (unknown name –Thackrey is cited as author) • Self-report • Allocated by governing body • Immediately pre and post intervention	• Confidence • Previous participation in training	There was a statistically significant difference between the two groups prior to the intervention in their level of confidence. Staff with previous training had the highest pre-intervention scores. Following the intervention at six month follow up, the group with the lower scores prior to the training were tested again. The results indicate a significant increase in confidence and ability to manage aggression within this group.
Whittington & Wykes (1996)	UK Psychiatric hospital (13 wards)	Cross-sectional: • Quasi-experimental • 2 groups • Pre-post • Repeated measures	155 Nurses: Intervention (n=47) Control (n=108)	Educational: • 1-day • Management of violence	• Number of notified assaults • Incidents recorded by staff disclosure when prompted daily. • Allocated by ward managers • For 28 days pre and 28 days post intervention	• Frequency of assaults	There was an overall reduction is assaults against staff following the intervention; however this effect was observed in both the experimental and control group; and this effect did not reach statistical significance. Wards with high levels (<50%) of nurse attendance to the training were associated with significantly lower levels of assault post-training. Wards with low attendance to the training (>50%) experienced a significant increase in assaults post-training.

2.3.3 Assessment of quality

The majority of studies were cross-sectional in nature and largely self-report based. An existing quality assessment form was adapted for this specific review from the quality assessment tool used by the NCCMT (2008; see Appendix D). The tool allowed for a quality assessment based on the following items: selection bias; study design; confounders; data collection methods; withdrawal and dropouts; intervention integrity; and analysis. Two assessors conducted the quality assessment independently (see Appendix E). The results are shown in Table 3.

Table 3. Assessment of Quality

	Muthuvenkatachalam et al. (2014)	*Magnavita (2011)*	*Needham et al. (2005)*	*Hahn et al. (2006)*	*Ilkiw-Lavalle et al. (2002)*	*McGowan et al. (1999)*	*Whittington & Wykes (1996)*
Study information	1	1	1	1	1	2	1
Selection bias	1	1	1	1	1	2	2
Study design	2	2	1	2	2	2	2
Confounders	1	2	1	1	1	2	2
Data collection methods	3	2	1	2	1	2	2
Withdrawals and dropouts	2	1	2	2	1	3	2
Intervention integrity	2	1	1	1	1	1	1
Analysis and results	2	2	1	1	1	1	2
OVERALL OUTCOME	Moderate	Strong	Strong	Strong	Strong	Moderate	Moderate

NOTE: 1=Strong, 2=Moderate, 3=Weak

2.3.3.1 Sampling and response rate

Four studies employed a wholly voluntary sampling method which may have led to a response bias. In two studies, the governing body or managers allocated nursing staff to participate in the research, which again may produce a response bias in that those who would benefit most from the intervention were nominated to participate. Muthuvenkatachalam, Kaur, Joshi, Negi & Sonika (2014) provided inadequate details from which to draw a conclusion about their sampling method, and therefore were rated as poorer quality.

Response rates of 70% are considered good (Ashworth, 2001), and associated with low non-response bias. Some though would argue that for social research an acceptable level for paper questionnaires is 50%, with response rates of less than this risking potential bias, compromised validity and reliability of results, and decreased demographic representativeness (Fincham, 2008). Three studies in this review indicated a decrease in response rate from pre to post-intervention; however none of them indicated the reasons for this, thereby making it difficult to draw firm conclusions regarding potential sampling bias. All three of these studies consequently ended up with small sample sizes, making generalising results to a wider population difficult. In particular, McGowan, Wynaden, Harding, Yassine & Parker (1999) reported high statistical significance of the intervention improving staff knowledge. However, with 15 participants as the final sample size (from 70), significant non-response bias cannot be ruled out and, as such, the generalisability of these results is questionable. Two of the other studies also suffered from small sample sizes, (Ilkiw-Lavalle, Grenyer & Graham, 2002; Muthuvenkatachalam et al., 2014),

allowing for the same potential sampling bias. These studies included data on dropout rates, but because they failed to give an explanation, they were scored as weak on data management.

Needham et al.'s 2005 study reported a 51% response rate, resulting in a final participant sample size of 58 nurses, which they acknowledged in their paper. Hahn et al. (2006), reported a 66% and 69% response rate in the intervention and control groups respectively. Whittington and Wykes's (1996) study had the largest sample size of 115 participants. Unlike other studies in the review, the authors noted and reported important differences between groups prior to the intervention, and commented upon how this may have impacted on their results, thereby acknowledging the potential bias (that is, ward managers allocating staff to intervention group). As these studies recognised their rates of attrition, they were rated as moderate quality.

One longitudinal study (Magnavita, 2011), reported an increase in sample size over the 10 year review period. Magnavita did not report whether the participants remained the same over the 10 year period, and it is unlikely that this is the case, particularly as the sample size increased over time. Therefore the effects observed cannot be attributed to the training intervention, and might be due to the change in participants over time. This meant that although the results could not be applied to individual staff, the results still demonstrate ward-level effects that are both statistically and clinically significant following the intervention, and show effects being sustained over time despite the likely change in population. This was scored

as moderate for quality based on the sample size increase being a potential selection bias.

2.3.3.2 Recording methods

All seven studies used some method of self-report when measuring the study variables; five used a questionnaire, test, or form to collect data. The other two methods are detailed below.

One study called the wards on a daily basis, asking staff to disclose assaults in the previous 24-48 hours directly, rather than relying on standard hospital incident reports. As the authors noted (Whittington & Wykes, 1996), this was in attempt to reduce the likelihood of underreporting because, as previous research has documented, staff in psychiatric settings tend to report only the assaults they consider most serious. Although the researchers attempted to reduce recording and data collection bias, it was rated as moderate rather than strong in the quality assessment, because the inclusion of incidents over 48 hours may have led to overlapping in reporting. If the researchers had asked the ward each day for incidents over the past 24 hours the study would have been rated as strong for the data collection methods.

The researchers in the Australian study by Magnavita (2011) also asked staff to report any assault they had experienced on a form. However, this was done on an annual basis at a yearly physical health check. Although the health check was mandatory, the disclosure of assaults was not, and therefore it is unknown how many of the 94 staff in the hospital chose to report assaults or not. Staff were also asked to write these incidents on a form as an adjunct to the annual health check. This required staff to recall

all incidents over the previous year. As Bowers et al.'s (2011) review demonstrated, mean yearly incidents in Australian psychiatric wards were 109.67 at the time of review. The maximum recorded number of incidents in Magnavita's (2011) study was 22 per year which may indicate that the data collection method used in the study allowed for significant under-reporting. The potential for reporting bias here meant the study lost points for quality. However as this study was retrospective, it is noted that the authors were only able to use data which had already been collected. Therefore the study was rated as moderate quality for these reasons for their data collection methods.

The remaining five studies used self-report-questionnaires. The studies that examined a three month follow-up period (Needham et al., 2005; Hahn, Needham, Abderbalden, Duzbury & Halferns, 2006) experienced lower response rates. Relying on self-report increases the risk of non-reporting bias, and poor response rates overall impacts on the validity of the results. Although the studies that tested participants immediately pre and post intervention gained higher response rates, they may have experienced order effects because of this.

2.3.3.3 Design

All of the studies in this review were appropriately designed to investigate the effects of an intervention on staff. Due to the nature of the settings and the interventions being evaluated, there was a paucity of RCTs. However, there was one by Needham and colleagues (2005), which aimed to investigate the effects of training offered across Switzerland, inviting all 87 inpatient psychiatric wards in Switzerland to participate. Six wards agreed to the waiting list randomisation design, and were allocated randomly to the

intervention or control group. Although this study scored well on quality for the design, the authors neglected to indicate how randomisation occurred, making it difficult to assess if randomisation methods were appropriate.

The difficulty in assessing the direction of the relationship in cross-sectional studies is addressed by longitudinal research, which allows for the impact of a violence prevention intervention on nursing staff to be evaluated over time. One study in this review employed a longitudinal retrospective design (Magnavita, 2011). This study scored well on quality, as it allowed for exploration of whether the intervention effects were sustained over time. However, confounding variables, such as change in building design, increased staffing levels etc. were also present. As a result, it is not possible to tell if the significant and sustained reduction of assaults over time resulted from the intervention alone or the intervention in the context of the other changes.

Of the remaining five studies, three used a repeated measures design with an intervention and control group, and two used repeated measures with one group. Using a control group offers researchers a comparison group, thus offering more certainty that changes observed may be a result of the intervention. For the inclusion of a comparison group these studies scored highly in the quality assessment (Whittington & Wykes, 1996; Hahn et al., 2006). However, as noted above, the study by McGowan et al. (1999) did not test both groups following the intervention, meaning that their highly significant results cannot confidently be attributed to the intervention alone, thus lowering the quality of study design overall. Further follow up testing

would help to determine if the effect is sustained over time, and if this translates to reduced rates of violence against nursing staff.

In the studies by Muthuvenkatachalam et al. (2014) and Ilkiw-Lavalle et al. (2002), the authors both tested the population immediately before and after the intervention. Although a valid study design, with no follow-up procedure or comparison group, it is difficult to determine if the significant differences in knowledge indicated a clinical change, or whether the knowledge was retained over time, therefore scoring moderately on quality for study design.

2.3.3.4 Analysis and results

All of the studies stated the statistical tests used. However, quality was considered lower when studies failed to mention the data cleaning process, the distribution of data, or to provide a rationale for their chosen data analysis. Two studies did not discuss any of this in their analysis or results and therefore lost marks on quality (McGowan et al., 1999 & Muthuvenkatachalam et al., 2014), as this hindered a reviewers ability to determine the quality of the analysis and this reduces the replicability of the study.

Although no information about the data cleaning process was present, which lowered their quality scores, Whittington and Wykes (1996) offered a reason for the use of each statistical test linked to the hypothesis aims. The study by Magnavita (2011) explained the use of interrupted time series (ITS), and presented the autoregressive model formula used. This makes the study easier to replicate at the analysis stage and thus were scored moderately for quality of the analysis and results overall. Similarly, Hahn et

al. (2006) explained that they used non-parametric analysis methods due to the non-normal distribution of data and offered that a probability of less than 0.01 was needed to indicate significance. Needham et al. (2005) considered the potential for type 1 error and declared that a probability of less that 0.05 was needed to consider the result to have statistical significance. These studies were scored high quality for their consideration of the data.

Although all studies commented on the statistical significance of the results, only one study reported effect sizes. Ilkiw-Lavalle et al. (2002) reported that the change in staff knowledge was statistically different following the intervention ($p<0.01$) suggesting that the increase in knowledge was not likely due to chance. The large effect sizes reported ($r=1.13$) suggests that the magnitude of this difference is clinically important. In reporting the effect size, the authors offer the reader a greater understanding of the data and results, and therefore the study scored higher on the quality assessment. Other studies reported the statistical means, which allowed the reader to decide if the changes following the intervention were clinically useful.

The results reported by Muthuvenkatachalam et al. (2014), demonstrated significance at $p<0.001$ across all four facets of the 'INTACT Knowledge Questionnaire'. A significant difference was found in knowledge following the intervention, suggesting that the training had positive and statistically significant effect on staff knowledge, even after a relatively short intervention, thus indicating that this may be a clinically important intervention. This study does not, however, give an indication of whether

this knowledge was sustained over time, or if this translated to differences in terms of actually preventing and managing patient aggression or rates of assault.

Of the studies that did consider testing at follow-up periods, two found no significant results at a three-month follow-up (Hahn et al., 2006; Needham et al., 2005) and one showed significance at six-month follow-up (McGowan et al., 1999). The latter study demonstrated that the increase in confidence to manage aggression, was sustained, and continued to be statistically significantly different from baseline even after six-months. This suggests that the intervention was clinically important in increasing staff confidence to manage service-user aggression.

2.4 Thematic analysis

2.4.1 Studies examining the effect on knowledge

Two of the studies examined the effect of an 'aggression management' training programme on the knowledge of the nursing staff, in India (Muthuvenktachalam et al., 2014) and in Australia (Ilkiw-Lavalle et al. 2002). Although the interventions, locations, and culture were different, the results were similar. Both studies found that the intervention resulted in a statistically significant increase in staff's knowledge on how to manage aggression from patients. Although the study by Muthuvenktachalam et al. (2014) reported highly significant positive change, staff were re-tested using the same knowledge questionnaire immediately following the one day training event, meaning the highly significant results may be attributed to recency bias. As there is no effect size or follow up information, readers cannot infer the magnitude of the change, and whether this change was

sustained over time. Moreover, the authors did not evaluate actual instances of aggression against nursing staff, so it cannot be determined if the increase in knowledge translated to real-world reductions in staff injury and assault, although previous research has suggested some association (Kaltiala-Heino, Berg, Selander, Työläjärvi & Kahila, 2007).

In contrast, Ilkiw-Lavalle et al. (2002) demonstrated statistically significant results and reported effect sizes. The large effect size found in their study indicates that the intervention greatly increased the knowledge of staff to manage service-users' aggression. Although this study also had no follow-up testing, or comparison to rate of violence, the large effects shown may indicate the clinical utility of this type of intervention. The intervention was delivered over two days and involved taught and practical elements. The inclusion of the practical component (i.e. role play, drills, self-defence skills) may be one reason that such large change was observed. In offering participants the chance to practise skills rather than being taught academically alone, the training was more clinically relevant, which may have increased the effectiveness of the training.

The authors also examined whether the effects of previous training had any mediating effect on how much a participant's knowledge increased following the intervention. The results showed that the training had the largest effect for those with no previous training at all. Further, even those with previous training were found to have significantly increased their knowledge following the intervention, particularly about the characteristics of aggression ($p<0.001$, $r=2.98$). The results showed that even those with previous training only scored approximately 50% on the knowledge

questionnaire at the pre-testing stage, which was increased to nearly 75% following the training. This might suggest that more regular training is needed to maintain positive effects over time. For adults to learn new information, it needs to be repeated at regular intervals to reinforce learning (Hurlebaus & Link, 1997). The qualitative data supports this, with nursing staff suggesting regular training, tailored to specific professions, and delivered to professional groups separately.

These studies found significant results from relatively short-term and accessible interventions which targeted increasing knowledge about aggression management, using a combination of educational and practical components. Although both offered relatively small sample sizes, the significance was large, and in Ilkiw-Lavalle et al.'s study (2002) there was also a large effect size. Having short and accessible interventions is a pragmatic strength, as they could be easily implemented in existing psychiatric hospitals and therefore are clinically useful. In particular, the INTACT program used by Ilkiw-Lavalle et al. (2002) is manualized and therefore this intervention can be replicated easily.

2.4.2 Studies examining the effect on confidence

Ilkiw-Lavalle et al.'s study (2002) suggested that regular training increases knowledge, which increases staff confidence to manage patient aggression. McGowan et al.'s (1999) study examined directly how staff confidence was affected when dealing with patient aggression, following a 22-hour aggression management course in a psychiatric unit in Australia. The results demonstrated that confidence levels reported by staff significantly increased across the ten domains tested, compared to their pre-

intervention scores. Although there was a small sample size (n=15), the highly significant differences in means indicated that there was a large effect in increasing staff confidence with this intervention. The results were observed at a six month follow-up period, which implied that the increase in confidence was also sustained over time. The authors compared the post-training scores of the intervention group with the pre-training scores of the control group and observed no difference in confidence levels on four out of the ten domains, but significantly higher results in the remaining six domains, suggesting that the intervention had increased the staff confidence level, to be in line with, if not slightly higher than, the control group that had been previously trained. The authors suggested six-monthly updates and clinical role-play drills as being important factors to maintain not only the knowledge but the practical skills and confidence for effective management of aggression, which supports findings from previous research (Calabro, at al., 2002; Whittington & Higgins 2002). Although these results are highly significant, they were demonstrated with a very small sample size of 15 nurses, following the initial intake of 70 to the study. Therefore, the results must be taken with caution, and further testing of confidence is needed, as well as examination of how increased confidence translates to real-world changes in psychiatric wards.

In the study by Magnavita (2011), confidence of staff was recorded as a secondary aim. It demonstrated that in the post-intervention stage, 88% of staff said the training significantly improved their confidence in their skills (Magnavita, 2011). As discussed below, this study also examined rates of assault, which significantly dropped following the intervention. This may corroborate research that has suggested increased staff confidence is likely

to be an important factor in reducing rates of violence and aggression (Rice et al., 1985). Magnavita (2011) suggested that increased confidence in staff's own abilities to use the skills learnt in training, impacted on their interactional style with service-users. Staff reported feeling more confident in enforcing boundaries in non-confrontational ways, or being confident in noticing aggression before it escalated to violence and thus were able to intervene at an earlier stage.

2.4.3 Studies examining the rates of assault

Two studies examined the actual rate of assaults to determine the clinical utility of interventions for safeguarding nursing staff in preventing, minimising, and managing aggression (Whittington & Wykes, 1996; Magnavita et al., 2011). The interventions used in these studies were both taught education-based interventions, delivered in one day. One study found significant positive change following the intervention and one did not. The study by Magnavita demonstrated that the intervention had a statistically significant effect ($p<0.001$) on the frequency and severity of assaults against nursing staff (Magnavita, 2011). The high assault rates remained stable in the six years preceding the intervention, and following the sharp decline during the intervention period, remained on a steady decline in the six year period following.

A similar pattern was observed in the severity of assaults, suggesting that the intervention had the desired effect. It is difficult for readers to ascertain whether this significant reduction in assaults was due to the education-based training alone, and as the authors noted, there were other changes (to building layout) occurring simultaneously, which could be confounding

or contributory factors. However, as the authors collected data on how frequently physical restraint was required, and demonstrated a significant decrease, it can be inferred that the intervention had a statistically significant and clinically important effect on reducing aggression and assaults. Another limitation of the study was the reliance on retrospective analysis of self-report data, which was intended for other uses. This may have led to reporting bias and misclassification. As noted previously, many nurses working in these settings under-report aggression and assaults, or see it as part of their job (Delaney et al., 2001; Snyder et al., 2007; Nachreiner et al., 2007). Nevertheless, this reporting system was consistent throughout the examined period.

Whittington & Wykes (1996) showed that the intervention resulted in non-significant reductions in staff assaults in the 28 days following the intervention, in both the control and intervention groups. Although a reduction overall is positive, as the control group had fewer assaults recorded also, this may suggest that this was not an effect of the intervention. There were group differences prior to the intervention at baseline measurements, which showed that a higher proportion of those in the intervention group had been assaulted, compared to the control group. It may be that staff were chosen by managers to participate in the study for this reason, which may account for the baseline differences. The overall reduction in assaults did not reach a significant level.

This was, however, the only study that commented on the difference between individual and ward–wide effects of training for nursing staff. The authors' exploration of ward-wide effects demonstrated that the

intervention was most effective at reducing rates of assault on wards that had high attendance and compliance to the intervention, as compared to those that had low attendance and compliance on which assaults actually increased. The difference in assaults recorded between wards according to compliance was statistically significant, and supports the 'critical mass' theory which would posit that overall staff behaviour and consistency of behaviour can reduce staff injury from inpatient violence (Carmel & Hunter, 1990).

2.4.4 Studies examining the effect on attitudes.

Two studies examined the effect of violence and aggression management training on attitudinal changes such as tolerance, perception of service-users, and attitude towards service-users following assaults (Needham et al., 2005; Hahn et al., 2006). Neither study achieved significant attitudinal change, which is concordant with previous research (Collins, 1994). This perhaps highlights the difficulty in trying to change attitudes, which are relatively stable constructs, and therefore not achievable on small scales or over short time frames (Bowers et al., 2011).

The authors of both studies offered some explanations for the non-significant result (as both studies used the same aggression management program developed in the Netherlands by Oud (1997)). The authors chose to observe changes in attitude alone, and did not examine if the aggression management course had increased participant's ability to manage aggression (perhaps by recorded number of aggressive behaviours or violence). Second, both authors suggested that their chosen psychometric tool may not have been sensitive enough to measure attitudinal changes, or

that attitudinal change could not be achieved over only five days. These studies demonstrated that attitudinal change was not possible with this training intervention, but it remains unclear whether attitudinal change is necessary for reduction in violence and aggression as neither of these studies collected data on instances of violence or aggression.

2.5 Discussion

2.5.1 Findings and recommendations

Through thematic synthesis of the above seven studies, this review has demonstrated that some clinically useful change can be achieved through existing training. This is encouraging since as the previous chapter outlined, violence and aggression against nursing staff in mental health settings is a pervasive problem. It is perhaps surprising that there are relatively few published studies evaluating pre-emptive training for psychiatric frontline staff given that the problem is widespread. This may be due to the practical and financial challenges posed by evaluative studies on clinical practice.

Overall, it seems that the studies that showed greatest statistically significant change were those that tested participants immediately before and after the intervention. This gives clinically useful information regarding what has a positive effect for nursing staff, however neglects to offer more longitudinal analysis. It would be useful thus, if future research includes follow-up testing to determine what effects, if any, are sustained over time.

Of the studies which did observe a follow-up period before re-testing, the results showed no statistically significant change or any positive change at all. This may indicate that the interventions were ineffective in the first instance, or it may suggest that the interventions do not create sustained

change. As these studies did not test immediately following the intervention, this cannot be ascertained. These studies examined attitudinal change, so an alternative reason for no observed change following the intervention may be because, as noted previously, attitudinal change is difficult to achieve at this level over a short period of time. As Hahn et al. (2006) posited, it may be that the tools used to assess attitudinal change may not be sensitive enough to detect changes, and furthermore the MAVAS in Hahn et al.'s (2006) study was reported as having poor internal validity.

It might be beneficial to compare the impact of a five-day training programme to a one or two-day training programme, with similar taught and practical components in order to determine if significantly more change occurs with more training. To do this the same methods of evaluation would also be needed to make comparisons of this nature. It is noted that the five-day and one day training programs discussed in this review are not directly comparable, nor were they testing the same outcomes so conclusions about the efficacy of shorter versus longer interventions cannot be made, and further exploration is required.

In addition the five-day programme includes both theoretical elements and hands-on training, thus it might have also been useful for the researcher to have investigated whether the training aided in the reduction of actual instances of aggression and violence, for example with comparison to actual number of incidents. Follow-up testing could also include an assessment on whether knowledge on the theoretical components has been retained which would be useful to assess against instances of assault.

Nonetheless the results of this review demonstrate that attitudinal change was not achieved following a five-day training programme, and it remains unclear whether attitude change is necessary to induce behavioural change. Although it could be implied from this these results alone that the comparatively high financial and resource cost of a five-day training program does not offer enough clinical benefit to be justified as a long-term training strategy, and certainly not with a view to altering attitudes.

It is recommended that future research examines the effects on other factors such as knowledge, skill, or actual instances of aggression and violence, which may provide insight into which aspects of the training, if any, are useful. As other studies have demonstrated, knowledge and confidence can be increased with training, and rates and severity of assaults can be reduced with training. For organisations, this offers important clinical insights. Ilkiw-lavalle at al. (2002) stated that knowledge acquisition is potentially important for nursing staff as it helps them understand the triggers of service-user violence, and understand their own responses to aggression, which could aid staff in preventing aggression escalating to violence (Ilkiw-lavalle at al., 2002). Future studies should objectively evaluate this by examining the number of incidents alongside confidence or knowledge, and examine why increased knowledge may reduce instances of violence. As Magnavita (2011) suggested, this association may be because increased knowledge makes staff feel more confident in their abilities, more able to recognise early signs of aggression, and more equipped to use the knowledge to deescalate situations.

This review demonstrates that there can be significant gains from repeated training. One of the findings from the qualitative results in Ilkiw-Lavalle et al.'s (2002) study supports this wherein the first theme was 'the need to have regular on-going training' (2002, p.237), which demonstrates that the staff noticed a clinical benefit in regular training alongside the statistically significant results. This suggests that any clinical training developed for psychiatric nursing staff to prevent or manage aggression should include the flexibility to run repeat or refresher versions periodically, to maintain the desired change over time. Most studies recommended at least yearly or six-monthly updates.

Regarding intervention design, five of the studies in this review had an educational and practical component to the training which involved the participant's physical participation, such as practising skills, role-plays, or restraint training. These studies demonstrated that some change was possible when training was aimed at developing staff knowledge and understanding; and indeed demonstrated some highly significant results both statistically and clinically. However non-significant results were found in studies that had the aim of altering attitudes or tolerance. This review shows that clinically useful changes were observed with interventions that were both educational alone, as well as those that had practical elements. Future research could examine further if the practical skills work translates to clinical change, perhaps through ward-based drills or role play examinations, rather than psychometric measures alone. This may give a more clinically accurate and face-valid view of whether practical elements are important for future training.

Although these studies found increased knowledge at statistically significant levels, there is no report of whether this translated to reduced incidents of violence and aggression, or better management of violence and aggression. Therefore, it is suggested that future research should record knowledge and confidence, as well as frequency and severity of incidents, or rates of coercive measures used, in order to explore if the increased knowledge of managing violence converts to clinical real-world benefits. In addition, it would be clinically useful to demonstrate if these interventions provide sustained changes over time. Therefore, it is recommended that future research should consider follow-up testing, or a longitudinal design.

Building confidence and skills to be able to manage violence and aggression seems to be fundamental to most interventions. Additionally, an understanding of the effects of trauma and how to manage them was important and was shown to have significant results. Even studies that did not address this directly as an aim noted that some secondary results suggested "in the post-intervention period… the workers reactions are less intense and do not include anxiety and fear" (Magnavita, 2011, p.339). The authors suggested that this may have been responsible for fewer instances of the use of restraint and seclusion, and thus fewer restrained-based incidents of violence. Staff also cited an increase in confidence to recognising early signs of aggression and violence helped to reduce violent incidents. Again, this is likely due to the increased confidence of staff, leading to better therapeutic relationships and communication, meaning prevention of violence or management of aggression without necessitating the use of restraint and seclusion. This was also noted in the study by Muthuvenkatachalam et al. (2014) as an important factor in managing and

preventing violence. This is of clinical importance because this review has demonstrated that the most significant results are from interventions which improve knowledge and confidence in these areas. These interventions also seem to be relatively accessible and easy to implement. This suggests that quite significant benefits can occur with relatively little organisational cost, which is an important factor for organisations when considering the development of training for staff.

Another theme that emerged was the potential need for this type of training to be delivered to different professions separately. In Ilkiw-Lavalle et al.'s (2002) study, the authors identified the theme "the need to run separate programs for different staff occupations" (2002, p.237). This was only found in one study in this review. However, this was the only study that also reported the results from other professions. Therefore, future research could explore whether separate training is beneficial or not and specific professional groups have specific professional needs.

Another clinically relevant area highlighted by this review is the consideration of individual versus ward-wide effects. Whittington and Wykes (1996) found that overall ward compliance with training resulted in a significant decrease in violence, but that wards with overall low compliance actually experienced an increase in violence. Low training compliance may mean inconsistency in nursing approaches on the ward, which in itself may create conflict. Further research is required to establish the magnitude and importance of this 'critical-mass' effect, and the implications of this for organisations.

Three studies in this review had a component of the intervention that addressed how to manage the psychological effects/self-care following violence at work by service-users (Whittington & Wykes, 1996; Ilkiw-Lavalle et al., 2002; Hahn et al., 2006). Although none of them directly investigated this, it does highlight that staff mental wellbeing and psychological safety is not necessarily a standard element of current training for the management of aggression and assaults. It may suggest however that there is a move away from focusing only on managing or preventing physical violence, and a move towards the consideration of other types of aggression and abuse nursing staff are subjected to.

2.5.2 Limitations

This review is not without its limitations. The search strategy and application of inclusion and exclusion criteria was completed by one reviewer. Having two independent reviewers complete this stage of the search may have yielded a more accurate search, and as such it transpires key papers have been missed such as a study by Carmel and Hunter (1990). The use of a second reviewer would have reduced or minimised this type of error.

In an attempt to capture as many articles as possible, search terms used regarding the population were kept broad (nurse, AND mental health /psychiatric), however this may have meant that articles referring to this population by different terms, for example 'inpatient staff' were missed. The review may thus have inadvertently overlooked suitable articles, such as the study by Calebro et al. (2002). Therefore this review cannot be considered exhaustive of all training reviews offered to all nursing staff in

inpatient psychiatric serves, but rather more focused on nurses' training alone. The final total of studies included was seven, so the review lacks generalisability since it only considered a small sample of the literature

The limitations of the search strategy notwithstanding, there was still a relative paucity of published articles in this area, particularly considering the NICE guidelines, which suggest all psychiatric hospitals in the UK offer some form of training to nursing staff (NICE, 2015). This could mean that these hospitals are not routinely evaluating whether their interventions are effective or that they are not pursuing publication. In order for the evidence base to grow in this area, it would be beneficial for organisations to evaluate and publish the results of the training and interventions used, as well as assess how they affect real-world rates and severity of aggression and violence. The studies are also based in a variety of countries, which could make results difficult to generalise to a UK nursing population. All these countries surveyed reported a similarly significant issue with psychiatric nursing staff being subject to disproportionate violence and aggression at work from service-users, so the results may be considered at least a starting point for understanding what works in general. However, more research in this area is clearly required for more robust results to be gleaned.

Additional research is also required to evaluate the impact of training programs using objective measures, such as the number of violent incidents as these were only used by two studies in this review. As subjective and objective measures are not necessarily correlated, studies that examine both may be most useful for future researchers. Future research could also

examine the impact of staff training from a patient perspective. This could also be evaluated based on objective and subjective data such as number and duration of seclusion stays and patient relationships with staff respectively. Future research would also benefit from larger sample sizes as this review is based on a relatively small total participant number.

The variation in results means that this review cannot give firm or definite answers to the review question. There are some indications to positive change in managing and prevention violence, but the results are far from conclusive. For example the results of two relatively similar one-day training intervention programs (both education in nature, and both requiring self-report of frequency of assaults), demonstrated that one had significant change in rates of assault (Magnavita et al., 2011) and one that had no change (Whittington & Wykes, 1996). Although the specific limitations and likely reasons are discussed above, this is an example of how this review question requires further exploration to glean generalizable results particularly as these two studies were actually collecting data on physical violence specifically.

The studies included in this review did not give definitions for what they considered aggression, violence, or assault. Therefore, there are some issues with understanding how participants conceptualised these terms. The following chapter considers this issue further by examining the varied definitions of these crucial terms, and investigating what 'abuse' means to psychiatric nurses that work with service-users who can act violently and aggressively. The findings from this review, and the finding from the following chapter, have highlighted that nurses do not have a solid

understanding of what they should and should not report and they do not believe there is robust enough training offered to support them with these issues. None of the studies in this review offered definitions of what they were including as 'violence' or 'incidents' to their participants' or to the readers. As noted before, the lack of definition makes comparisons between training programmes challenging, and raises issues with recording, staff understanding, and reporting.

Finally this review is a thematic integration of results and not a meta-analytic review. Although individual results can be interpreted within each study, there is no statistical understanding of the overall picture. This is however, a step towards gaining an understanding of the existing interventions used, and their effectiveness for nursing staff in order to help protect the workforce.

2.5.3 Summary

This review suggests that interventions targeting knowledge, confidence, and skill acquisition can be clinically useful for nursing staff. An increase in knowledge and confidence seems to allow staff to feel capable of managing aggression in more appropriate ways, which reduces the likelihood of escalation, nurses' anxiety, anxiety-led reactions, and thus reduces the use of restraint and seclusion. This is supported by research that suggests that nurses' reactions and their understanding of these plays an important role in creating an environment in which de-escalation techniques can work, and

is important in the application of de-escalation skills in themselves (Magnavita et al., 2011; Bourne, 2013; Evans & Hannigan, 2016). The subsequent effect is that the service-users experience a more compassionate and knowledgeable workforce, who have skills and confidence to use early interventions such as verbal de-escalation. Service-users also experience fewer instances of restrictive or coercive measures, and therefore are less likely to cause injury or assault to staff as a result of these hands-on interventions. This is corroborated by research that has suggested that patients become violent when they feel vulnerable, helpless, or afraid (Collins, 1994), which is likely to occur during a physical restraint. Over time this may translate to attitudinal change, however this review suggests that it is unlikely to occur as a result of short term interventions.

A ward that collectively understands "risk assessment and diffusion techniques" (Whittington & Wykes, 1996, p.258), "indicators and prediction of aggression" (Ilkiw-Lavalle et al., 2002, p.234), and "conflict resolution & effective communication strategies" (Magnavita, 2011, p.338), can prevent conflict escalating to aggression or violence. As Whittington and Wykes's (1996) study indicated, macro or ward-wide effects should be carefully considered for future clinical practice; if training is to be delivered, it should be done consistently across each ward.

These results should be interpreted with caution, given the above described limitations. Evaluation of other violence and aggression management interventions is required. It would also be useful to conduct a review that includes all frontline staff, not only nurses. This may create an evidence-base that can be used to inform and develop training to be more targeted

and as such more effective in the future. This review offers a preliminary finding that some training interventions can result in some significant violence reduction and increase in confidence, and demonstrates that violence may not necessarily have to be 'part of the job'.

These results have implications for retaining a healthy work-force and reducing the likelihood of burnout or loss of staff due to injury. To widen the perspective and develop a robust understanding of how more effective and targeted training can be delivered, the following chapter will explore what frontline nursing staff's lived-experience of abuse is. This will help to develop an understanding of how abuse is conceptualised by those who actually work in these challenging environments, and what factors are important in their conceptualisation, for example is confidence in one's own ability important? It is hoped that through exploration of the lived experiences, it will be possible to gain some understanding of how staff make sense of these experiences, and whether training factors influence their conceptualisation at all.

CHAPTER 3: RESEARCH

AN EXPLORATION OF HOW FORENSIC PSYCHIATRIC INPATIENT STAFF MAKE SENSE OF THEIR EXPERIENCES OF 'ABUSE' FROM PATIENTS: A MIXED METHODS APPROACH

Abstract

INTRODUCTION: Some of the highest violence rates from service-users recorded are against forensic psychiatric nursing staff, but prevalence data varies due to underreporting and variation in definitions. This study explored how staff conceptualise abuse, via an exploration of their lived-experiences.

AIMS: First to qualitatively explore the lived experience of nurses and nursing staff (frontline staff) in a forensic psychiatric hospital in the UK, to better understand how staff conceptualise abuse in this setting. Second, to assess whether there are differences in the way forensic psychiatric staff appraise abuse, compared to the public.

METHOD: Mixed methods approach: 1) Semi-structured interviews were conducted with eight frontline staff and evaluated using interpretative phenomenological analysis. 2) An online vignette survey was completed by 160 participants (public and clinical sample). Data were non-parametric and evaluated using Mann-Whitney and Kendal's Tau tests.

RESULTS AND CONCLUSIONS: The themes demonstrated that staff conceptualise abuse based their individual perceptions, and are influenced by the systemic reaction. This seems to depict a dynamic process wherein the systemic reaction informs how staff make sense of their experiences, and impacts how they make sense of their experience and come to

conceptualise it as an abusive experience. The qualitative results indicate that those who work in forensic inpatient wards, and those who have more experience, have a higher tolerance of abusive experiences as compared to a public sample thus supporting the premise that working in these settings has a desensitising effect over time, and staff come to view abuse as 'part of the job'. Recommendations are made for further exploration of lived-experiences, gathering the perspective of service-users as well as staff.

3.1 Introduction

Violence, abuse, and aggression are amongst the biggest challenges faced by staff in psychiatric wards (see below for a description of these terms). Not only can it lead to injury to both staff and service-users, physical risk management procedures that could be perceived as abusive can also have counter-therapeutic effects, such as restraint and seclusion (Whittington, 1997; Patterson, McCornish & Bradley, 1999; Petit, 2005). Anderson and Bushman, (2002) made the distinction that violence is aggression that has extreme harm as its goal, and all violence is aggression, but many instances of aggression are not violent; and when working in these settings, both are risks to staff. Furthermore these risks are increased in a forensic psychiatric inpatient setting due to the inherent nature of why the service-users are referred to these services, i.e. their risks cannot be managed by primary mental health services due to the risk of violence or abuse to themselves or others (Coid, Kahtan, Gault, Cook & Jarman, 2001; Mason, 2002; Whittington & Richter, 2006). The literature highlights staff abuse from service-users as a clear and pervasive issue, however there are many difficulties in researching this such as under-reporting, and varying definitions of what constitutes abuse. As such this study aims to explore

what forensic psychiatric nurse's narratives are about abuse; and understand how and what is important in their conceptualisation of abuse at work from service-users.

In a literature review by Bowers, et al., (2011), the results consistently showed forensic services to have amongst the highest rates of physical violence when compared to other services. The increased risk to staff can lead to physical injury as well as emotional effects including anger, shock, fear, depression, anxiety, post-traumatic stress disorder, and sleep disturbance (Budd, 1999; Needham, et al., 2005; Baby, Glue & Carlyle, 2014). These issues can in turn lead to more pervasive problems such as low morale, high rates of sick leave, high staff turnover, and long term sickness absences (Baby, Glue & Carlyle, 2014). Some research has shown that the adverse consequences are even more prevalent as a result of the more commonly occurring non-physical abuse (Gerberich et al., 2004), perhaps in part due longevity of emotional and psychological effects. Subsequently this can trigger a cycle of low staffing leading to the presence of temporary staff who may not be as well trained and who are expected to work with people who pose significant behavioural challenges. Consequently, this creates problems for service-users, staff (permanent and temporary), and management. This significantly affects an organisation's ability to accept new referrals, which can impact negatively on the organisational income. In addition, operating wards that are under-staffed or over-reliant on temporary staff who may be less specifically trained, can bring about more incidents of violence or abuse (James et al., 1990). This in turn results in increased sick leave and staff turnover (Owen, Tarantello & Jones, 1998; Arnetz & Arnetz, 2001; Kisa, 2008) therefore continuing this cycle.

According to a freedom of information request by BBC Five Live Investigates (Robinson & Grant, 2017), NHS mental health workers cited financial cuts to nursing staff as one of the main reasons for an increase in violence and abuse within NHS mental health trusts.

A reliance on temporary staffing can reduce the efficiency of the service and the quality of the care provided, which contributes to increased risk of violence or abuse (James et al., 1990; Bowers at al., 2005). This also increases financial costs to recruit, train, and induct new staff (Audit Commission for Local Authorities & the National Health Service in England, 2001; Chapman & Styles, 2006; Johnson et al., 2011). Recent news articles reporting on psychiatric workers in the NHS have documented a serious problem with abuse to staff from service-users (Campbell, 2017b; Merrifield, 2017; Smith, 2017). A report by UNISON revealed that 87% of the staff surveyed cited staffing shortages as the cause of sharp increases in violent incidents (UNISON, 2017). Over the previous 12 months, 42% of staff reported being a victim of physical abuse or violence. 74% of respondents cited experiencing work-related stress at least once a week and 36% experienced stress on a daily basis. This incurs a great financial cost for the service, with 22% taking time off due to the impact of stress and abuse at work. The costs to staff, service-users, and the organisation demonstrate why abuse of staff is an important topic to consider. It is however not without difficulty; the literature that has attempted to explore this topic thus far has been concerned with the prevalence of abuse but the results of these studies have been inconsistent.

3.1.1 Prevalence

Violence, abuse, and aggression have long been a challenge for staff working in health care professions, and have been prominent in mental health and forensic healthcare settings in particular. In contrast to Anderson and Bushman's academic definition of violence, the Health and Safety Executive's (HSE) definition of work-related violence is "any incident in which a person is abused, threatened or assaulted in circumstances relating to their work. This can include verbal abuse or threats as well as physical attacks" (Department of Health, 2003, p.1). The NHS definition of physical assault used for incident reporting purposes is "the intentional application of force to the person of another, without lawful justification, resulting in physical injury or personal discomfort", while non-physical assault is defined as "the use of inappropriate words or behaviour causing distress and/or constituting harassment" (NHS Business Services Authority Security Management Service, 2007, p.3). Despite these definitions, some local NHS trusts or private companies cite their own definitions, which cause difficulties for researchers. Even with this prominent barrier to realising accurate prevalence ratings, data still show a consistently high rate of violence and abuse against healthcare staff.

A report by Skills For Care (2013) showed that 38% of frontline staff (those who work primarily on the ward such as nurses, nurse support staff, and health support workers) who work in health and social care roles in England and Wales experienced abuse from service-users. Of these, 93% reported experiencing verbal abuse and 56% reported experiencing physical abuse. Despite the high prevalence rates observed across the NHS, qualitative interviews and online surveys of 160 staff conducted alongside this (Cairncross & Kitson 2013a, 2013b) have corroborated the suggestion that

this is still an under-reported figure. The potential reasons and impact for under-reporting are discussed further below. Research has indicated that prevalence ratings increase for those working with particularly challenging groups, such as mental health and forensic service-users (Antonius et al., 2010; Bowers et al., 2011). Results from a study looking at staff morale in NHS inpatient psychiatric hospitals showed that over half the sample reported having experienced discrimination with service-users being the source. Staff also experienced high levels of violence, with 58% of psychiatric staff reporting at least one attack in the past year, with the most serious incidents often being recorded on forensic wards (Johnson et al., 2011). These incidents were considered severe as they resulted in at least one staff member being off sick for at least one week per incident (Johnson et al., 2011).

In 2017 UNISON undertook and reported the results of a survey conducted across the UK and across several mental health organisations, including secure and community mental health settings, with over half of respondents being nursing or nursing support staff. 76% of respondents said that "cuts affected what they were able to offer to service-users" with many citing "patients in inappropriate settings for their needs due to bed shortages", a "lack of services to offer patients", and a "lack of resources and increased workloads leading to less oversight of clients" (UNISON, 2017, p.3), all of which were leading to increased violence and abuse towards staff. Fifty percent of respondents felt that the increase in violence rates each year was due to reliance on agency staff, and 87% thought it was due to cuts made to staffing levels (UNISON, 2017). Since 2010, the number of mental health nurses in the NHS has fallen by more than 10% with other findings

indicating that violence against mental health staff has risen each year since 2010 (NHS Protect, 2017), and has risen in the past five years by about a quarter (Robinson & Grant, 2017). Freedom of information requests to NHS bodies across the UK show that the number of incidents rose from 33,620 in 2012-13, to 42,692 in 2016-17 (Campbell, 2017b), with mental health settings in England experiencing the sharpest increases.

Although prevalence rates of abusive behaviour in forensic settings are consistently higher than in other services, it is apparent from the literature that even these rates are vary considerably. Some of this variation may be the result of the different staff and settings which are sampled, the different methodologies that are used, the different categorisation of staff and work areas, and the different definitions of the term 'abuse' (May & Grubbs, 2002; Cahill et al., 2004; Cairncross & Kitson, 2013a). Although academics and organisations may hold definitions for what abuse is, individuals may hold their own definitions and therefore only report according to these. The conceptualisation of 'abuse' as an experience can be indefinite and subjective in itself; therefore, it follows that the observed prevalence rates are varied. This is a common issue for all research which considers 'victims' and their subjective experience. The subjectivity raises the question of whether a single definition of abuse can be achieved, even if limited to a specific variable. For example, does an act become abusive if it is a certain type of behaviour, or does it depend on how it affects the victim? This is problematic in the sense that an act may be tolerated by one nursing professional but considered abusive by another. For some people in forensic services, this inherent inconsistency makes abusive behaviours too complicated to manage successfully, and continues to contribute to under-

reporting of abuse. This is pertinent to the current study which is not concerned with prevalence of abuse or even defining abuse, how it is experienced, and how it is come to be conceptualised on an individual level as abuse. Nevertheless, unclear definitions and under-reporting continues to pose a challenge for researchers and practitioners alike in being able to alter policy or practice based on complex and unclear data.

3.1.2 Under-reporting

A literature review suggested that this under-reporting points to a "high degree of tolerance amongst staff, not least because they are frequently the victims of patient violence and aggression" (Bowers et al., 2011, p. 22). This is supported by reports (Cooper & Swanson, 2002; Ipsos MORI, 2010), which show a discrepancy between the reported number of incidents and the actual levels of violence and aggression in these settings. It seems that this tolerance of abusive behaviour is inevitable to some degree, particularly when verbal abuse is the most reported incident, perhaps as a result of normalisation, organisational factors, and team factors. Possible reasons for the variance in recording of such are as follows: nurses feel unable to perceive if an abuser intends harm; staff become accustomed to violence at work; difficult reporting procedures; not believing change will occur as a result of reporting; and staff not knowing what constitutes abuse (Lanza, 1992; Lyneham, 2000; Forrester, 2002). This then raises the question; what is abuse for people working in these settings, and at what point is abuse tolerated?

3.1.3 Tolerance

As noted, research in this area has been largely focused on the extent of violence, aggression, and abuse, and the effect(s) on staff. There is a

paucity of research that examines the conceptualisation and understanding of abuse from the victims, which may explain why these behaviours go unreported and are seemingly tolerated. The results of a review by the NHS Department of Health (Ipsos MORI, 2010) revealed that the reasons most staff gave for not reporting all abuse was that they were 'used to abuse' or thought it was 'part of the job'. The authors suggested this demonstrated a level of tolerance and acceptance of abuse at work from service-users. The few qualitative studies that have explored experiences of abuse (Delaney, Clearly, Jordan & Horsfall, 2001; Snyder et al., 2007; Nachreiner et al., 2007) have suggested that once working in these settings, staff come to perceive assaults as an inevitable part of a career in psychiatric inpatient care and seem to perceive aggression to be common, therefore they do not report it. This does not necessarily mean it is accepted, but rather tolerated by staff (Anderson & West, 2011).

Studies have examined tolerance attitudes amongst nursing staff that have experienced abuse, particularly around the time the NHS employed a 'zero-tolerance' policy on violence and aggression in 1999 (Whittington, 2002). Some studies suggested that a more tolerant attitude is significantly associated with higher morale, lower burnout, and more years of experience (Flannery, Stone, Rego & Walker, 2001), although the relationship seems to be influenced by other related factors such as job satisfaction and perceived professional control (Dickinson & Wright, 2008). Other studies have demonstrated that in psychiatric services, nurses reported a high tolerance for assault, although they recognised it as an experience that was often very traumatic psychologically (Baxter, Hafner & Holme, 1992). Perhaps in less experienced staff there is a lower tolerance

due to the discrepancy between their personal levels of tolerance for abuse, and their professional expectation of tolerance for abuse (Delaney et al., 2001; MacIntosh, 2003). For example, if a nurse acts like abuse does not trouble them but internally they are negatively affected by the behaviour; they appraise it as abusive and over time this may lead to psychological distress or burnout, through the process of cognitive dissonance. The theory of cognitive dissonance states that psychological distress is experienced by a person who simultaneously holds two or more contradictory beliefs, ideas, or values (Festinger, 1957), and is distressed by this. Burnout may be the result of managing opposing beliefs over time, or as a result of nurses acting contrary to their values (Rushton, Batcheller, Schroeder & Donohue, 2015). For example, one may hold a belief that they should or would not tolerate being abused normally; however they work in an environment where it is tolerated by peers and occurs on a regular basis. This difference then creates the perception that abuse is, and should be, tolerated (Mann & Cowburn, 2005; Bakker & Heuven, 2006). Stevenson, Jack, O'Mara, and Le Gris (2015) have described it in their paper as a process by which the "balance creates a conflict in one's role between the duty to care for patients and the duty to one's self and own safety" (p. 9), with the internal conflict contributing to psychological distress and potential burnout. Research has found that staff with lower burnout scores supported the view that 'violence is normal' more than those with higher burnout scores (Delaney et al., 2001), perhaps suggesting that they have reconciled any cognitive dissonance by adopting this belief at work (Nolan & Smojkis, 2003). Additionally, those with more experience perceive there to be fewer incidents of violence compared to less experienced members of staff (Martin

& Daffern, 2006; Roche, Duffield & Catling-Paul, 2010). This is perhaps because the threshold for what they consider 'abusive' has been raised over time through a process of acclimatisation or habituation (Whittington, 2002), or as a result of working in such settings where they have become desensitised to violence and abuse, as it occurs disproportionately often in forensic services (Baby et al., 2014). Furthermore, some prevention and management training that is offered to psychiatric nursing staff actually aims to increase staff tolerance toward service-user aggression (Needham et al., 2005).

This may suggest that staff tolerance of a certain level of abuse at work functions as an unconscious protective mechanism, in that it may help with longevity in their career. On the other hand, more experienced staff who perceive less abuse, and therefore fail to report it, may be modelling a process of non-reporting, which may discourage newer, less experienced staff from reporting abuse (Ferns, 2006; Pawlin, 2008; Stokowski, 2010). This then raises a question about how important variables such as age and amount of experience are for how abuse is conceptualised or experienced. A qualitative study by Cutcliffe (1999) showed that nurses' views of aggression are highly individualistic. Themes suggest that there is a decision-making process by which nurses choose what is considered violent; such as determining intent, considering previous experiences, and the extent of their relationship with the service-user (Stevenson et al., 2015). As with much victim-related and experience-focused research (Ratner, 2002), it is important to consider the conceptualisation of abuse from an individual's experience and point of view.

3.1.4 'Abuse'

As described above, the costs associated with abuse at work are high not only to the staff themselves, but to service-users and organisations. Therefore, exploring the conceptualisation of abuse from a psychiatric nursing perspective has potential benefits for developing learning and training opportunities for staff. These could include how to recognise abuse, and how to respond to abusive experiences. This may have knock-on effects, which could lead to better staff retention, fewer sickness absences, and lower staff turnover. The benefits would include an increase in the efficacy and efficiency of the ward, as there is an appropriate level of properly trained staff. This may also create a more positive working environment, consequently boosting staff morale.

As outlined in chapter one, the literature regarding the topic of abuse includes a variety of definitions for the term, most of which list subcategories rather than encapsulating the term in one single definition, thus making it more challenging for researchers interested in this topic. For example, the NHS guidance on safeguarding adults defines abuse via subcategories including: sexual; psychological physical; domestic; discriminatory; financial abuse; and neglect (NHS England, 2015). This may be because; the term is so broad that narrow definition is impossible, each service has its own definition of abuse, or the process of determining abuse is too subjective. Burge (1998) suggested that perhaps our language may not be able to accurately label the nuances that 'abuse' encompasses. Perhaps instead it is more important to explore the experiences themselves to better understand the phenomenon of abuse from those who experience it. Social constructionist literature (Berger & Luckmann, 1991) have

theorised that it may not be important to find one definition for abuse, and it is more pertinent to explore the way abuse is constructed as a phenomenon in a person's life regarding their personal, social, and professional context. As the phenomenological philosopher Husserl (1927, as cited in Smith et al., 2009) stated, an exploration of a person's experience in relation to their inner-world (personal views), their outer world (social/professional context), and to each other, is what allows for a phenomenon to emerge. It seems that determining what is meant by the phenomenon of 'abuse' for forensic psychiatric staff, and how it relates to their clinical practice, is an important issue. It can potentially aid in understanding how to help resolve the problems resulting from abuse or abusive experiences, particularly in a current climate where abuse against mental health nursing staff is continuing to rise.

Aims and objectives of this research

This study used a mixed methods approach:

- Qualitative approach: to explore how nursing staff in one forensic psychiatric inpatient hospital made sense of their experiences of abuse received from service-users, and how they came to consider them as acts of abuse. This study is concerned with the phenomenological exploration of abuse and considers the individual's subjective experience as situated in the social and psychological context.
- Quantitative approach: to quantitatively explore the potential

differences or similarities between how a clinical population (staff) and a non-clinical population (public) appraise an abusive scenario with regards to their level of tolerance. This included examining if other demographic variables impacted on this appraisal (such as age, gender, previous forensic experience (e.g. student placement, previous job), amount of experience (in years), and personal experiences of abuse.

3.2 Methodology

A mixed method design was used for this research which offers the potential to glean a richer level of detail and analysis, where quantitative results support the qualitative results (Axinn & Pearce, 2006). Mixed methods research can increase comprehensiveness of data interpretation and includes methods that complement each other. IPA methodology is not concerned with gleaning generalizable results; however, the inclusion of a quantitative element in this research would allow for a further examination of the data in regard to the differences in how abuse is perceived on a small scale to this particular population. The methodologies for both the qualitative and quantitative elements are detailed below.

3.2.1 Qualitative approach

The primary intention of this research was to explore the individual experiences of a particular group of people, with specific regard to how they come to make sense of abusive experiences. Qualitative approaches are appropriate for this kind of exploration as they are not concerned with ascertaining general laws, but rather concerned with socially constructed meanings. These experiences can be better captured using qualitative

analysis than through numerical analysis alone. Grounded theory (Strauss & Corbin, 1994) aims to develop explanatory theories of social processes, and discourse analysis (Brown & Yule, 1983) is concerned with how language is used to express and construct reality. Although both these and other qualitative methods would have allowed exploration of this research question, IPA (Smith, Flowers & Larkin, 2009) was deemed the most appropriate. As Elliott (1995) states, qualitative research is concerned with contributing to a process of enriching and understanding, rather than verification of existing conclusions or theories. Qualitative approaches also allow for multiple constructions or interpretations that individuals might make (Willig, 2001; Smith, 2004). IPA is concerned with the exploration of an individual's lived-experience and how this contributes to their construction of a phenomenon which in this case is the phenomenon of abuse. For these reasons IPA was chosen to explore this research question, and contribute to the understanding of this topic.

3.2.1.1. Interpretative Phenomenological Analysis

IPA is underpinned by three distinct philosophical concepts which are discussed below:

1) Phenomenology

The first major philosophical approach that informs IPA is that of phenomenology; the study of experience. Husserl (1927, as cited in Smith et al., 2009), one of the eminent philosophers of phenomenology, highlights the need to move away from what is called the 'natural attitude' and move towards adopting a 'phenomenological attitude'. The 'natural

attitude' refers to the process by which people try to understand experiences in relation to pre-defined categories and preconceptions, or based on pre-existing ideas (Smith et al., 2009) which are known as a person's 'fore-structures'. Husserl emphasises a focus on the 'phenomenological attitude' which he states is an examination of "the things themselves" (Husserl 2001, p.168). This is understood as shifting attention towards a purposeful examination of the conscious experience, without attempting to understand experience by fitting it into predefined or overly abstract categories. Rather, the emphasis is on taking adopting a reflective and introspective position, attempting to recognise our fore-structures but not be led by them. Therefore, a short background to the analyst can be found in Appendix F to understand the stance or 'fore-structure' from which the interpretation has emerged. The analysis is then concerned not only with the experience itself, but with how it is experienced, thus examining how participants come to attach meaning to it and how it becomes 'an experience' that holds significance.

2) Hermeneutics

The second major philosophical approach that informs IPA is that of hermeneutics: the study of interpretation. As the philosopher Heidegger (1962, as cited in Smith et al., 2009) emphasises, the human experience is inherently subjective. Hermeneutics is therefore concerned primarily with the context of a person's experiences, and their 'sense-making' process. This is also to do with how they go on to relay their experience and 'sense-making' to a third party (in this case, the interviewer), thus taking into consideration the wider context of their experience.

What sets IPA apart from other qualitative methodologies of interpretation is that it has been described as a 'double hermeneutic endeavour', as it requires the additional sense-making endeavour of the analyst, who inevitably brings their own subjectivity and context to the process of interpretation. Thus any interpretation using IPA is not only a reflection of the individual's experience, but also of the analyst's attempt to make sense of the individual's sense-making experience.

3) Ideography

Finally, IPA is considered an ideographic methodology in that it is interested in what the experience is like for the individual, and how the individual makes sense of it. However, this is done with the knowledge that more than one participant can be examined in regard to similarities and differences when taken from a homogenous group. Smith et al. (2009) highlight this as a difference to most other psychological approaches, which often are focused on obtaining generalizable results. IPA states that the individual experience is paramount, and the examination is about convergence and divergence of individual experience and sense-making through in-depth idiographic analysis. Husserl suggested that, "these essential features of an experience would transcend the particular circumstances of their appearance, and *might* then illuminate a given experience for others too" (Smith et al., 2009, p. 12) however this is not the express aim of IPA.

3.2.1.2 Qualitative design

1) Development of the interview schedule

Semi-structured interviews were conducted following IPA instructions (Smith et al., 2009), to explore the experiences and perceptions of abuse from an individual perspective (see Appendix H). This avoided asking questions that carry presumptions about the participants' experience, and to avoid leading their answers, thus adopting a phenomenological attitude. The questions were designed to be open and expansive, and the semi-structured nature of the interview schedule allowed the author to encourage the participant to talk at length rather than answering a set of questions. The interview questions were focused on the topic of understanding what experiences participants have had that they consider abusive and how they came to conceptualise them as such. Therefore the questions were informed by previous qualitative research on this topic (Delaney et al., 2001; Snyder et al., 2007; Nachreiner et al., 2007; Cairncross & Kitson 2013a, 2013b), and were shaped by the guidance for developing a semi-structured interview by Smith, Flowers, and Larkin (2009). As this study was an exploration, some questions were asked to gain descriptive information such as "*please could you tell me what your job role is and how long you have been doing it?"* Other questions were narrative based such as, "*can you tell me what you consider abusive behaviour at work from service-users? Can you tell me about a time that you have experienced abuse at work from service-users?*" Some questions were designed to explore, evaluate, and compare aspects of their experiences such as; "*how do you react when that happens? Can you tell me what other's reactions are when this happens? Would this be different outside of work?*" In addition, prompts and clarifying questions were used to encourage further discussion such as, "*can you tell me a bit more about that? What do you*

mean by 'it is tolerated'? How did you feel? Why?" The initial interview schedule was then reviewed by a supervisor, as advised by Smith et al. (2009), and finalised together. The semi-structured nature of the interview schedule allowed for exploration within the interview and as the primary focus was on the individuals' experience, the interviews were led by the conversation.

2) Ethical approval

The proposal for the research was submitted to the University of Nottingham Research Ethics Committee and accepted on the November 2014. The proposal was also accepted by the NHS Trust where the research was to be conducted and gained approval by the NHS Research and Development department in November 2014. An ethics application was submitted to Integrated Research Approval System and accepted in November 2014. Data collection occurred between December 2014 and May 2015 and was kept anonymous. Participants were advised that all recorded data would be transcribed and made anonymous.

3) Recruitment and Procedure

All staff who met the inclusion criteria (over 18 years old and frontline staff in forensic services) were invited to participate in a face-to-face interview via email which included information about the nature of the study and the nature of their participation, should they choose to participate. Staff

indicated their interest via e-mail correspondence, and additional information was given where required. A convenient time was arranged with each participant and interviews were conducted in interview rooms separate to the wards. Participants were asked to read an information sheet and sign a consent form before the interview began. The interviews were recorded on an encrypted electronic audio recording device and were then transcribed into an electronic word document. The interviews ranged from 13-41 minutes in length, and were held away from the wards, in a neutral interview room.

4) Participants

Nine participants volunteered for the interview, and eight agreed to be interviewed (the ninth person left the service before the interview). Two participants were male and six were female. See Table 4 for participant information.

5) Analytic strategy

Smith (2004) refers to three defining features of IPA; it is idiographic, inductive, and interrogative. The idiographic nature of IPA, as discussed above, allows for in-depth exploration of an individual transcript. Unlike quantitative research, which establishes a hypothesis from the onset to be tested, IPA adopts an inductive nature to analysis, allowing for the potential emergence of unpredicted or unlikely themes. Lastly, the IPA process is interrogative in that the themes or patterns that do emerge from analysis are known not to exist in isolation, but are evaluated and discussed in regards to theoretical knowledge and psychological principles.

Table 4. Participant Information

Participant number	Age	Gender	Occupation	Years of service
1	28	Female	Staff nurse	4 years
2	30	Female	Staff nurse	7 years
3	45	Female	Staff nurse	14 years
4	23	Female	Nurse support worker	7 months
5	32	Male	Nurse support worker	2 years 6 months
6	48	Male	Nurse support worker	18 years
7	28	Female	Staff nurse	5 years
8	26	Female	Nurse support worker	1 year 3 months

During analysis the British Psychological Society's guidelines on qualitative research studies (Elliott, Fischer & Rennie, 1999) were considered, and the seven guidelines that are pertinent to qualitative research in particular were followed. Table 5 offers a brief outline of how this was achieved.

5) Analysis

Although there is no one definitive method to undertake IPA, Smith, Flower and Larkin (2009) offer a thorough seven-step analysis process which emphasises the flexible and dynamic process of the analysis within the framework. 1) Reading and re-reading the original data; becoming immersed back in the interview, perhaps whilst listening to the audio recording again; re-situating within the participant's world. 2) Initial noting of descriptions, semantic content, linguistic content and conceptual comments on an interrogative and exploratory level. This is demonstrated in the example given in appendix G in the right-hand column labelled 'exploratory comments'.

Table 5. Guidelines for Qualitative research

Guideline	How it was achieved

1.Owning one's perspective	In order to acknowledge my presuppositions and fore-structures, a background to myself as the analyst has been given in Appendix F
2. Situating the sample	Table 4 provides background information about the sample population
3. Grounding in examples	Concrete examples of themes that have emerged from the data analysis are given in the results.
4. Providing credibility checks	As part of the analysis process, the initial themes were reviewed by the research supervisor (who also works in a forensic psychiatric inpatient setting as a clinician) to verify, suggest elaboration, or suggest corrections.
5. Coherence	Below the themes are organised under subthemes and superordinate themes to organise the data and support coherence of the results.
6. Accomplishing general vs. specific research tasks	As outlined above, the aim here is to understand the specific phenomenon of abuse as experienced by a specific group, and it is acknowledged that the results are limited to the extent they can be generalized.
7. Resonating with readers	In order to make meaningful connection with the data, I attempted to remain as close to the participants' language. Interpretations and theme names are created with their experience in mind, making sure not to use overly abstract jargon.

3) Developing emergent themes; reducing volume of detail whist maintaining complexity; and mapping connections and patterns from exploratory notes. This is shown in the example in Appendix G in the left-hand column labelled 'emergent subthemes'. 4) Searching for connections across emergent themes and charting how themes fit together (see Appendix G, column labelled 'main themes'). 5) Moving to the next case and repeating the process. 6) Looking for patterns across cases. 7) Taking interpretation to deeper levels with attention to the double-hermeneutic endeavour.

This process was followed throughout the qualitative analysis. One example extract will be discussed in order to explain how the IPA analysis was

conducted. In Appendix G line 98-100, the transcript reads "*It makes a massive difference to how I view it and not accept, because I never accept it, but get on and get over it*". In the right-hand column the discrepancy between the language of "massive difference" and "get on and get over it" is noted. One suggests a significant impact on the individual but then is immediately followed by the dismissing of their reaction or emotion. In the left-hand column this is interpreted as 'distance emotionally', suggesting that this individual recognises the impact abuse can have on them, but in order to 'get on' with their job, they feel as though they must 'get over it'. This implies a subjugation of their own feelings in favour of their professional needs. A few lines later the transcript reads, "*I think I viewed situations more cautiously*" (line 107) followed by "*I think it's just a learning process*" (line 109); once again demonstrating the impact it has on the individual and the change it created in them. This is followed by a dismissal of the abuse event as 'part of the learning process' again implying that 'getting over' abuse is viewed as part of the job. Interpretations such as these led to the understanding that abuse is phenomenologically understood by participants based on both their personal and professional opinions. Abuse becomes an abusive experience based on how they interpret their professional views and their personal views, as well as how it impacts upon them. Examining this across transcripts revealed a similar pattern wherein participants conceptualised abuse based on an evaluation of the impact it has on them, such as the need to distance themselves emotionally and professionally in order to continue with work.

This fed into two subthemes; the first being 'wouldn't tolerate abuse outside of work' (see Appendix G in the column labelled 'emergent subthemes' by

line 101). This subtheme related to how the individual makes sense of their tolerance level by way of comparison to their personal identity outside of work, thus falling under the main theme of 'individual tolerance' (see Appendix G in the column labelled 'main themes' by line 101). The second subtheme is 'emotional distancing', which speaks to the impact that an abuse has on staff, in that they must separate their emotions in order to cope with future potential abuse. This subtheme was situated under the main theme of 'individual impact' (see Appendix G, in the 'main themes' column, by line 104). Both main themes ('individual tolerance' and 'individual impact') were understood as two of three components, that when clustered together, indicated the way that the individual perceives abuse at work. Therefore these main themes were eventually classified under the super-ordinate theme of 'individual perception'. These subthemes, main themes, and superordinate themes are listed in Table 7 and discussed in detail in the results below.

3.2.2 Quantitative approach

To explore the secondary aims, the interviews were supplemented by a short online survey that collected additional quantitative data using a question and vignette approach. The design, participants, and analysis are outlined below.

3.2.2.1. Quantitative Design

The Vignette

A short quantitative study was designed using a single-vignette approach with the aim of determining potential differences in appraisals based on a single situation, between a clinical and public sample. A vignette has been described as ‘‘a short, carefully constructed description of a person, object, or situation, representing a systematic combination of characteristics’’ (Atzmuller & Steiner, 2010, p.128), and has long been used as a method to gain insight into the decision making process of professionals (Hughes & Huby 2002; Bachmann, Mühleisen, Bock, ter Riet, Held & Kessels, 2008). Evans et al., (2015) highlighted that the single-vignette approach has been used in research to uncover how participants themselves would react to a particular scenario.

In the current research, both groups were asked to read the same vignette and were then asked to rate the point at which they would feel abused were they in that scenario (see Appendix I). This is based on similar studies which have shown that responses to hypothetical situations can subsequently predict responses in real life. A meta-analysis of studies using a vignette methodology (Murphy, Herr, Lockhart & Maguire, 1986) demonstrated that participants responded to hypothetical and real-life scenarios in a similar manner. Lunza (1990) found that nurses’ responses to a vignette scenario predicted their responses to real service-user assault incidents that they later encountered at work. Therefore a single-vignette approach was used with both samples to determine if their appraisal of abuse differs from each other, due to the vignette.

The vignette used in this study was constructed using a peer review of psychiatric nursing and support staff (*n=6*). The vignette depicted a ‘typical’

scenario in which an inpatient's behaviour gradually escalates in severity, culminating in physical abuse (see below). This 'escalation' was assessed as accurate based on the real-life experiences of the staff involved. In the absence of time and resources available to conduct any further reliability or validity testing on the novel tool, the vignette question (see Appendix I) was also piloted on a small group (*n=3*) of psychiatric nurses (who did not take part in the final study). They assessed the vignette for its likeness to their own real-life experiences and they agreed that the escalation pattern was increasing in severity throughout the vignette. Therefore the single-vignette tool was considered to have acceptable face validity.

> *"You go to wake up a service-user at 11am to remind them they have an appointment with a solicitor in an hour; they ignore you and turn over. You try to encourage them to wake up. They get out of bed and walk up to you, saying "go away" and close the door in your face.*
> *Eventually the service-user wakes up and comes into a quiet lounge room which is off from the main living space. There are no other service-users or staff around. The solicitor arrives. You go to get the service-user, they ignore you, and turn up the volume on the television. When you try to talk to them, they shout at you to 'fuck off'. As you continue to explain the situation to them, they stand up and approach you. They are in your personal space and they start arguing with you loudly. They start to swear at you and call you names. They start to pace up and down, just in front of you while they are shouting and gesturing their arms.*
> *As the service-user is angrily moving about, they knock all the cups and magazines off the table in one angry sweeping motion of their arms. They start screaming to be let out of the ward and threatening to harm other people if they are not let out. Other staff have come over and are trying to talk to the service-user.*
> *The service-user continues to shout at you, calling you names, saying terrible things about you, and threatening you and others. You ask them if they would like to access the de-escalation room to calm down. They refuse. They pick up the TV remote and throw it at you, which hits the side of your face. The service-user is held in fore-arm holds and guided towards the de-escalation room. As you are doing this, the service-user becomes very resistive and tries to kick you. They then try to spit at you. As you guide them through the door to the de-*

escalation room entrance, the service-user attempts to shove you heavily against the door frame. They manage to kick your leg. You are in the de-escalation room, and the service-user appears to be more settled. You get up to leave them to calm down on their own, and the service-user gets up and runs towards you and punches you in the face."

The following demographic variables were collected to explore whether they had any impact on how people appraised the vignette with regard to the point at which they would feel abused in the given situation. This is in addition to exploring any differences between a clinical (forensic psychiatric staff) and non-clinical population (public):

- Gender: Research has shown that male nurses are significantly more likely to be the victims of physical abuse or aggression in mental health settings compared to female nurses (Arnetz, Arnetz & Petterson, 1996; Edward et al., 2016). However female nurses are more likely to report physical violence and abuse than male nurses (Ridenour et al., 2015). This has been explained on the basis of socio-cultural norms about men being less affected by violence, abuse, or aggression and therefore reporting it less often, despite research showing they are more often the victims of physical abuse than female staff (Ridenour et al., 2015). This is included as a variable for exploration in this study, to determine if gender has an impact on the way in which the above vignette is perceived and the threshold at which the behaviour is considered abusive.

- Previous abuse at work: Research has demonstrated that significantly more nurses who work in psychiatric services have experienced multiple acts of violence and abuse at work from service-users

(61.4%), compared to those who have only experienced abuse once (15%) or not at all (23.5%) (Arnetz et al., 1996). This suggests that it is much more common to experience abuse several times in psychiatric nursing work. Research has also suggested that there may be a desensitisation effect over time (Delaney at al., 2001; Nachreiner et al., 2007; Snyder et al., 2007; Stevenson et al., 2015) whereby staff habituate to abusive experiences. This variable is included in this research to assess if those who have experienced abuse previously in their job have a higher threshold for what they now consider abusive, compared to those who have not.

- Previous experience of forensic psychiatric work: As noted, those who work in psychiatric inpatient care experience disproportionately higher levels of abuse, violence, and aggression from service-users (Dack et al., 2013), and those who work in forensic psychiatric inpatient settings experience this even more so (Bowers et al. 2011). Research has suggested that those who experience abuse often can become desensitised or habituated to it (Delaney at al., 2001; Nachreiner et al., 2007; Snyder et al., 2007). Therefore, it is included in this exploration to see if those who previously worked in psychiatric forensic services have a higher threshold for abuse as compared to those who never have, even if they no longer work in that service.

- Age: Research has shown that psychiatric nurses that are older and more experienced, report less abuse when compared to younger nurses (Whittington & Wykes, 1994; Arnetz, Arnetz & Petterson,

1996). However there is some discrepancy in the results of previous research, whereby some have found some differences but not to statistical significance (Lanza Kayne, Hicks & Milner, 1991). Research has suggested that older and more experienced nursing staff tend to report less abuse, whether that is because they experience less instances of abuse in reality, whether they view abuse differently compared to younger staff, or whether they report abuse less often than newer or younger staff (Blair & New, 1991; Chou et al., 2002). It has been suggested that in general, older nurses are likely to have been in their job role for longer, and therefore may be desensitised to abuse, aggression, and violence at work from service-users (Whittington, 1997; 2002). Therefore age is included in this exploration to determine if it is associated with the way in which abuse is appraised by forensic psychiatric nurses and nursing staff.

- Years of experience: Similarly, research has suggested that the longer a nurse has held the job, the more habituated or desensitised they become to the violence, aggression, or abuse from service-users (Carmel & Hunter 1990; Whittington & Wykes, 1994), and the less they report experiencing abuse. As noted before this may be due to non-reporting as staff become more experienced or desensitised, or it may be that with length of experience comes experience in effective de-escalation. According to Blair and New (1991), nursing assistants and student nurses have a higher incidents of assault, which suggests that skills and experience may play an important role in assault prevention. For these reasons the amount of years experience as a mental health nurse is collected in this research, and

will be examined in the clinical population in regards to how they rate abuse in the vignette.

- Student: Nursing training has long been a practice-based education and nurses in training are required to 'learn on the job' via placements throughout their training. As such, much of their training is generally received from senior, more experienced nurses, and their learning is through observation and shadowing. Some research has suggested that this method of teaching and learning can be unhelpful when it comes to passing on 'bad habits' such as non-reporting of abuse at work from service-users, or tolerating of abusive behaviours (Chou, Lu & Mao, 2002; Ferns, 2006; Pawlin, 2008; Stokowski, 2010). As such the current research is including this as a variable to explore whether students have different thresholds for what they consider abuse compared to those non-students

Recruitment and Procedure

All frontline staff (excluding those involved in the construction and pilot of the vignette) in a forensic psychiatric inpatient hospital were invited to participate in the online survey (across three forensic low secure wards), which was distributed using a 'snowballing' method. This involved sending out an e-mail to staff in the NHS Trust which included a brief description of the study and the hyperlink to the online survey where they were directed to the information page. This page included information regarding

anonymity, and their right to withdraw before completion, with the knowledge that their data already submitted would not be removable due to the anonymity in recording. The e-mail also requested that each participant send the e-mail on to others over the age of 18, inside or outside the NHS, thus exponentially increasing potential participant numbers, and recruiting a non-clinical (public) sample at the same time. The survey was set to close on a pre-determined date five months from the start date due to time restrictions. Upon closing the survey, there were no incomplete data sets meaning all participants had completed the entirety of the survey. Another email was sent to all psychiatric nursing staff across the three low secure wards inviting them to participate in the qualitative interview.

3.2.2.2 Quantitative Participants

The clinical sample consisted of those who worked in forensic inpatient settings, and the non-clinical sample consisted of the general public. A total of 160 participants completed the online survey; however it is not possible to determine the response rate based due to the snowball method used. Demographic information can be found in Table 6. There were 160 participants who completed the whole survey; 79 in the clinical sample and 81 in the non-clinical sample. 106 of participants were female and 54 were males. 70 out of 79 of the clinical sample had experienced abuse at work, as compared to 17 from the non-clinical sample.

3.2.2.3 Quantitative Analysis Methods

The size of the required sample was calculated using G*Power (version 3.1). Sample sizes were calculated based on an 80% power value suggested by Cohen (1992) for social science experiments, with a medium effect size and two-tails. In order to assess differences in the dependent variable 'Abuse

Ratings' between the two levels of the independent variables, e.g. Gender (Male and Female) or Group (Clinical and Non-clinical), a Mann-Whitney test was appropriate, because the data were not normally distributed and met the assumptions for this test which are as follows. Firstly, that the dependent variable measured is continuous or ordinal in nature. This study uses ordinal data as there are distinctions between each rating on the vignette, but the distance between them is not necessarily known (Field, 2009). Secondly, the independent variable must consist of two categorical groups. In this study, the independent variables are Gender and Group for example. Thirdly, each participant must fall into one independent group (e.g. male or female). In this study this assumption was met, for example, male or female, clinical or non-clinical. In the results section below, the statistical assumptions of the data showing the non-normal distribution are given. For a Mann-Whitney test a sample of 67 was needed in each group (a total of 134) in order to establish significance at 0.05 level. For correlations a total sample size of 106 was required at a significance level of 0.05. Based on these calculations, the actual sample size of 160 is acceptable for the current research. The data were analysed using SPSS 23. Frequencies and descriptives were calculated for the sample. Histograms were generated along with skew and kurtosis values to check for distribution errors and outliers.

Table 6. Demographic Data of Survey Participants

	Clinical Sample (N=63)	***Non-Clinical Sample (N=97)***	***Total N (N=160)***
Male	19	31	50

Female	44	66	110
Experience of abuse at work	57	19	76
No experience of abuse at work	6	78	84
Worked in forensic inpatient setting before	57	7	64
Not worked in forensic inpatient setting before	6	90	96

During cleaning of data, examination of boxplots highlighted a number of outliers within the non-clinical sample group. In order to explore the significance of these outliers both parametric and non-parametric tests were conducted, which yielded similar results. Levene's test for equality of variance indicated the data were not normally distributed and violated equality of variance. Based upon this, the decision was made not to transform or alter outliers within the non-clinical group (Zimmerman, 1994). Instead, non-parametric tests were used in the analysis as these tests do not assume equal distribution or homogeneity of variance, and are suitable when outliers are present (Zimmerman, 1994; Tolmie, Muijs & McAteer, 2011). In order to explore the secondary aims of this research, non-parametric Mann-Whitney tests were appropriate to assess differences in continuous data (vignette response) against a dichotomous variable (such as gender). Non-parametric Kendall's Tau tests were also used to examine the continuous data (age and years of experience) as they were not normally distributed, and in a sample with several tied ranks it has been suggested that Kendall's statistic is a better estimate of the correlation (Field, 2009).

3.3 Results

3.3.1 Qualitative analysis

The development of the final themes were not exclusively based on the prevalence of data across participants, but on the examination of the importance of the individual experiences in their own right (phenomenological rigour), in order to understand the most important aspects of participants 'sense-making' of abusive experience. This resulted in five main themes and several subthemes (see Table 7). These were named by using language close to that which was used by participants to reflect the sentiments as accurately as possible, for example one subtheme is called 'Mad versus bad'.

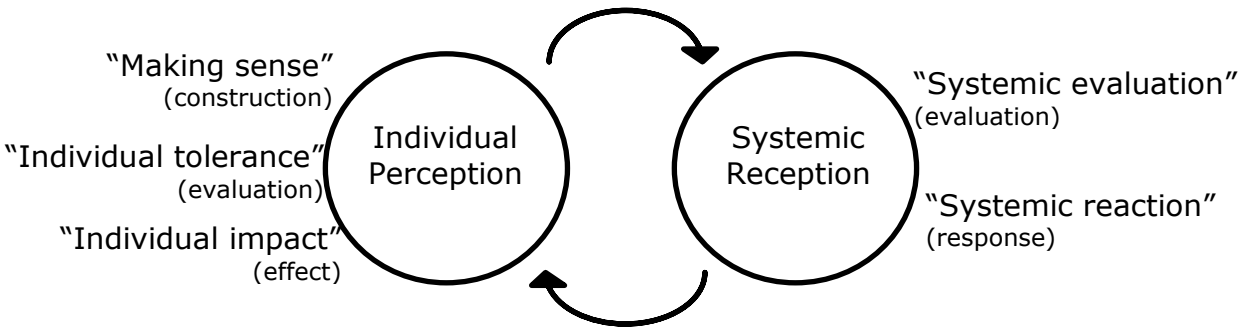
The themes and subthemes were grouped under two superordinate themes related to the following: first, how an individual makes sense of their experiences; and second, what an individual believes the systemic reaction to this experience will be. These have been called 'individual perception' and 'systemic reception' respectively, and can be understood as being part of a reciprocal relationship wherein each one informs and impacts upon the other. This is depicted visually in Figure 2. The figure will be explained in more detail below, followed by the exploration of individual themes, and concluding with a discussion about the model and how this informs future research and clinical practice. Direct quotes from participants will be denoted in parenthesis following a quote, for example, '6:10-12', means participant 6: line 10-12.

Table 7. Final Recurrent Themes with Related Superordinate Themes (divided into sections in relation to a model discussed below)

Super-ordinate themes	**Individual Perception**			**Systemic Reception**	
Main themes	Making sense	Individual tolerance	Individual impact	Systemic evaluation	Systemic reaction
Sub-themes	• Classifications of abuse (physical versus non-physical) • Need to understand reasons • Mad versus bad • Attribution of intent or blame	• Easier to manage abuse when service-user is 'unwell' • Easier to manage a physical abuse • Wouldn't tolerate abuse outside the context of work • Higher tolerance for abuse at work • Abuse is part of the job	• Psychological effects are harder to manage • Feeling powerless • Emotional distancing	• Behaviours should be considered abuse but are not by teams • Should be 'zero tolerance' • Abuse should not be part of the job but is tolerated • Judgement from others • Can't let team down	• Lack of systemic support • Lack of emotional support • No form for non-physical abuse • Need for training and education

The first three main themes are grouped together because they relate to how the individual understands their personal experience. They relate to how the literal act is experienced, how it is evaluated, and considers the impact on the 'self'. Gregory (1970) argued that perception is a constructive process whereby information from our environment is evaluated and interpreted in order to understand the experience. These three themes are therefore grouped under 'Individual perception' as they relate to these constructs.

Figure 2. Conceptualising Abuse Model



The other two themes are related to perception in regards to 'others' rather than 'self'. Gregory (1970; cited in Smith et al., 2009) stated that

perception is a hypothesis, which is also based on prior knowledge. In this way, individuals actively construct their perception of reality based on what is literally seen, as well as prior knowledge. For phenomenologists, perception means "a state of reflection, in which the immediate happening is put into relation with former experiences" (Nadler, 2014, p.184). In this research, the 'state of reflection' is how an individual comes to perceive their experiences based on their own construction, evaluation, and consideration of the effect it has on them (i.e. Individual perception). The 'former experiences' are understood as what an individual's previous experiences of the systemic response is, and how this influences how they have come to think and feel about their own experience. The final two themes are therefore grouped under the term, 'Systemic Reception". The 'systems' in this research are the ward system (colleagues), the organisations systems (managers and hospital practices), and societal systems (represented by police and public reactions).

These two superordinate themes did not seem to be discrete from each other; rather they interacted in a dynamic way and influenced each other. In other words, the immediate experience that an individual is trying to make sense of is understood as more than just what is literally perceived in front of them. Former knowledge or fore-structures, as well as context, are combined with and augments the immediate perception.

One example is staff discussing how the 'zero-tolerance' policy was supposed to allow staff 'permission' to report abuse to ward managers, the organisation, and police. Although staff understood that the organisational systems endorsed this policy, in reality they witnessed that the

organisations were not able to uphold it pragmatically. Their experience at work demonstrated that the organisational response was not actually a zero-tolerance response: *"Nobody [management] seemed to care [about staff being assaulted], they seemed to think that we were just supposed to deal with it. And I guess it is part of the job" (3:151-52).* This example highlights the process by which the individual perception interacts with the systemic reception. The individual has experienced abuse, however based on their fore-structures, will not report it as an abuse, as the systemic response in the past has been to 'deal with it'. This in turn perpetuates the cycle and impacts future likelihood of non-reporting.

Many staff spoke of experiencing the organisation as dismissive or minimising the severity of their experiences. The implicit feedback is that abuse will not be addressed, and therefore staff learn not to report it next time. Participants indicated that this changed their personal perception and over time their threshold for what was considered abusive was raised. Some participants spoke of having a prior knowledge that the systemic reaction to non-physical abuse was also disempowering. For example, the organisation provided an incident form to document physical abuse, but one did not exist for any other types of abuse;

> *"The minute someone is violent towards you, you run to that form and fill it in. If someone says something to ya, you don't. … It's kind of them forms are for serious things. … I kind of expected there would be somewhere to put it [non-physical abuse], to document it and deal with it" (4:226-229 & 271).*

Thus the participant forms a fore-structure that the organisational reception of non-physical abuse is that it is not considered 'serious', and therefore not worthy of reporting. This is reinforced by the ward-level systems reaction to abuse, which influences how they perceive the abuse themselves;

> *"Well yeah, I spoke about it for probably a week, gauging everyone's reactions and obviously people were shocked at the initial act but probably not shocked that it happened if you see what I mean. Yeah people who had seen things like that happen before and yeah. I think that then as well it was more the case of, that's the nature of the job, get on with it" (6:75-81).*

Furthermore, this lack of supportive response is reinforced at the societal-level systems as represented by the police; *"I think you very often report it to the police but then they are not helpful. It can be very frustrating" (1:99-100); "If it's racially abusive we have got the police involved but it doesn't feel like- there is not much they do. Nobody in my experience has ever been charged" (1:114-116).*

Therefore staff developed a fore-structure that police took no action when an abuse was reported. Instead they experienced being told that they should expect abuse in this job; once again reinforcing the message that this experience is not serious, and adjusting staff perceptions. Participants also received this response from people outside their job who thought that it was an expected part of the job role; *"When I've spoken to people outside of work about it, and kind of got the reaction of, 'oh well, you work in that kind of environment' " (1:94-96).* The absolute language used in some of these quotes such as 'nobody' and 'ever', is perhaps demonstrative

of how ingrained the notion is at ward, organisational, and societal levels. Staff come to develop fore-structures that indicate what types of abuse are seen as serious; what types will receive support; and what types are not worth even reporting at all. Thus the systemic reaction has altered the individual's perception, and the experience is re-constructed; *"I don't think it should be part of the job but then I think it's naïve to think it's not part of the job" (1:73-74).*

This quote demonstrates how these two superordinate themes interact, and are often in conflict with each other. This participant holds opposing individual and systemic beliefs. Research has documented how this kind of cognitive dissonance in nursing staff can lead to professional burnout. To rectify this contradiction, staff must align with either their individual beliefs or the systemic beliefs.

These types of conflicts emerged often throughout analysis, and will be discussed in detail below, as each one of the themes is explored individually.

Individual Perception

3.3.2 Making sense

3.1.2.1 Subtheme: Classifications of abuse (physical versus non-physical)

When asked simply what abuse was, the majority of participants responded with a list of types of abuse which were grouped as physical and non-physical. However, when asked to talk about their own experiences, all participants spoke of physical abuse. This perhaps points to how common physical abuse is. Alternatively, as the organisation seems to have a clearer description of physical abuse, perhaps this distinction makes it easier for

staff to articulate. Non-physical abuse seemed harder for staff to define. For example one participant initially demonstrated an intellectual knowledge that abuse can be verbal aggression: *"I would, class [abuse as] kind of verbal aggression as well as challenging behaviours. Erm I suppose some of the kind of manipulative type, emotional kind of abuse" (1:18-20);* however later showed that the cultural discourse is that verbal aggression is not considered abusive at work; *"I wouldn't say that the staff team sees it as abuse. And particularly people who it happens very regularly with …so yeah, it's definitely not seen as abuse" (1:120-124).*

Research by May and Grubbs (2002) suggests the terms 'nurse assault' and 'nurse abuse' are used interchangeably in the literature. This in itself confuses prevalence ratings, and can give the impression that abuse is violence, and by proxy, that other non-violent abuses are not abuse at all.

Abuse was also considered to be dependent on subjective experience and suggested the importance of individual perception; *"Everyone has their own opinion on what they would see as abuse or not like personally if a patient was just shouting, I wouldn't see that as abuse" (8:26-27); "I think it just depends on the individual, like what they see as being abusive and what they see as not abusive" (8:131-132).*

3.3.2.2 Subthemes: Staff's need to understand reasons/ Mad versus bad/ Attribution of intent or blame

It was important for staff to 'understand' the motivation or intention behind the behaviour in order to evaluate it. Participants spoke of understanding service-users as either 'mad' or 'bad', which contributed heavily to the evaluative process of conceptualising an event as abusive or not. Typically in psychological practice, to understand the motivation of someone's

behaviour means to understand the function, or to understand what they are trying to achieve. Here however, participants seemed to talk more about understanding if the service-user was 'mentally ill' or not. Given the workplace in which there are both mental illness and forensic issues to consider, it is highly likely that the service-users are 'mentally ill'. Therefore it seems this attempt to understand the intention is more about the staff member and less about the service-user.

> *"Was it madness or was it badness? I think a lot of the violence we saw and experienced was through sheer psychotic behaviour. They were obviously doing it, but it were led by paranoia, by their illness. It makes a massive difference to how I view it and – not accept it as such – but get on and get over it" (6:92-99).*

When considering the service-users as 'unwell', the behaviour was considered 'random' and thus non-intentional; *"Our service-users, they tend to be more verbally and physically aggressive towards the staff just because of the mental state they are in" (8:49-51).*

> *"She punched me in the stomach, like I said before, it didn't feel too bad because I knew she was upset and, yeah, it didn't feel like she was, you know, thinking 'oh, you nasty nurse, I'm gonna punch you', she was distressed mentally" (1:37-41).*

Conversely, if the service-user was deemed to be mentally 'well', their actions were considered intentional;

"The service-user who did try to get me, I don't believe he had full capacity of what he were doing. So if they were well I think they have got capacity and they know what they're doing. I mean as silly as it sounds, the guy who tried to assault me, you've got a degree of sympathy for him because you know that they're mentally unwell. Whereas you know some of the guys on my ward are quite savvy. They know what they are doing and saying, so if they do swear at me, you deal with it different obviously" (5:46-48).

In making sense of the behaviour as an artefact of mental illness alone, staff were permitted to believe that there was no intention to harm, which made it easier to manage psychologically. There was a sense that abuse that was viewed as driven by mental-illness was more 'accepted' and commonplace than other types of abuse;

"If you can't rationalise someone's behaviour, and you know that it's not rational what they are doing, and they're just confused, then it's easier to think… just like somebody having a really bad fever and saying a lot of stuff that they wouldn't normally say I guess" (3:111-115).

3.3.3 Individual tolerance

3.3.3.1 Subthemes: Easier to manage abuse when service-user is unwell / Easier to manage a physical abuse

Staff made the distinction that physical abuse was easier to manage and psychological abuse is harder to manage. All participants considered physical assaults to be serious abuse; however there was a difference in how they were evaluated as compared to psychological abuse. Again, intent was a key factor in deciding how the experience impacted them;

> *"I suppose it varies on whether they're unwell or not as well to how it kind of feels, whether it does feel abusive or not. I think if someone is well then it feels a lot more like it's behavioural, it's more er, it feels more like it's you know, abuse. I suppose they are able to control what they are doing to an extent, more so than if they were unwell" (1:21-29).*

When 'wellness' was constructed as synonymous with 'intentional', the perceived intent of the act felt more targeted in nature, which resulted in staff feeling powerless and wondering why it had occurred to them. Conversely staff felt more in control when the abuse had a perceived intention that was understandable; *"Because as an assault occurs, especially if someone is in midst of a psychotic episode and an assault occurs you can deal with the assault, you can accept the behaviour to a large extent" (6:160-62); "Because for me, like this patient was unwell and it goes back to what I was saying, like I can tolerate the behaviour because he was unwell you know" (7:220-22).*

Indeed the survey results have suggested that forensic clinicians tolerate more abuse as compared to the public. Their tolerance for such abuse is mediated by the perceived intent. Behaviour became less tolerated when staff felt less in control, or could not explain the behaviours as an artefact of mental illness. Perhaps the very nature of caring for mentally unwell service-users may in some way contribute to this. It may be that in order to care for these challenging patients, nurses feel that they must tolerate some level of abuse, and perhaps this is why abuse from those that are perceived to be 'well' is harder to manage.

"So the fact that somebody could be in my face, screaming at me, but talking about things that have no relevance. For example if they are fixated on things like the devil or something ridiculous but they are in your face just being horrible; for some reason that's fine, that's okay. I can walk away or I can just laugh it off but when it's somebody picking on you, that's just like I can't get used to that" (4:180-86).

3.3.3.2 Subthemes: Higher tolerance at work compared to personal life / Abuse is part of the job

As suggested previously, it is important to consider the context and fore-structures when interpreting how staff make sense of abuse.

"I wouldn't tolerate that, I don't think it's alright for any abuse in my personal life. I guess, I don't really have a choice though, but in like your relationships, or with your family, you have a choice. You know, I'm employed to do the job therefore you know, you have got to expect it, not all the time, but most of the time" (1:78-83).

The personal and professional self is influenced by the context of the personal or professional world. In the context of being employed, staff felt obligated to tolerate abuse more than they would in their personal life. Thus the individual has come to believe that they should expect it. This is reinforced by their experience of the systemic reaction which has created the fore-structure that abuse is 'part of the job'; *"I'm not saying it's right but yeah, it is part of the job you know" (5:58-59); "Yeah people who had seen things like that happen before and yeah. I think that then as well it was more the case of, that's the nature of the job, get on with it" (6:79-81).*

> *"But when you're at work, there's something about it, I dunno what it is but you're made to feel like that's part of your job just to be a bit like a punch-bag and like, take it in and absorb it" (4:249-251).*

As previous research has suggested (Flannery et al., 2001; Whittington, 2002), those who are able to adjust their individual beliefs to align with the systemic beliefs, are less likely to suffer professional burnout, therefore suggesting it may be protective to adopt this view to some extent. Although the cognitive adjustments in this research indicates a shift towards tolerating abuse, this is not to say that adjusting one's professional beliefs at work in general equates to being devalued, as it seems a relatively common and necessary part of employment is to be able to fit with the culture. MacIntosh (2003) qualitatively explored nurses' perceptions of how they became 'professional'. The central problem for nurses was dissonance between expectations and experiences; they addressed this by a process of reworking their professional identity. Here, staff spoke about their own feelings about witnessing others being abused, for which they had much less tolerance; *"Not towards me, but it's mainly towards others if I see a service-user screaming and shouting …that's, that's when it affects me a great deal more" (6:265-268).*

> *"For me, my tolerance is high, higher for myself than it is for my team. Like if a patient is more verbally aggressive to somebody in the team or becomes physically aggressive, it's almost like you become protective of them. Just as much as you're protective of the other service-users" (7:67-71).*

Perhaps this is an indication of how staff who work in high-care psychiatric

settings value caring for others over themselves, or find it easier to show care for others than to show self-care. Perhaps 'caring for others' in these settings may also mean taking abuse from them. This parallels a common dynamic seen in forensic psychiatric service-users, wherein care equals abuse, and self-care is a difficult skill for service-users to use. Perhaps this is also indicative of a systemic culture in these environments of undervaluing self-care.

3.3.4 Individual impact

3.3.4.1 Subthemes: Psychological effects harder to manage / Feeling powerless

In the previous theme, determining the intention or reason behind the experience was important to conceptualisation of abuse. In this theme, the type of abuse suffered was an important consideration in judging whether a situation becomes an 'abusive experience'. As noted previously, psychological abuse was more difficult to tolerate; *"I can do violence, I can put up with that, but when it's personal and it's hitting you really mentally, it's awful" (4:155-157); "It's like I say to someone, I'd rather be punched than consistently being targeted and verbally abused every day" (7:341-343).*

> *"In the past when I've restrained somebody when I came back to work and the next time I had to restrain somebody it didn't feel scary but I know in the past I've been quite seriously threatened by somebody and felt threatened, and that traumatised me, that had more of an impact on me" (1:53-57).*

It seemed to be that participants felt much more powerless when faced with non-physical abuse. One interpretation is the organisation provides less

scaffolding about what constitutes abuse and how to manage it. Without this the staff felt powerless or out of control. Research has suggested that one mediating factor to reduce burnout is an increased of sense of control (Leiter & Maslach, 1999; Portoghese, Galletta, Coppola, Finco & Campagna 2014); *"You just can't do anything, being left powerless almost with just sort of coming to the fact that you are going to be assaulted" (7:325-327); "I think patients take it for granted that they can just behave abusive towards staff because of where they are" (3:11-12).*

Staff felt powerless to prevent abuse at work, not only as they are faced with it constantly, but also because they are getting consistent feedback from the systems around them that no action can be taken to effect change. Thus the staff members feel powerless both to receive abuse, and to report abuse.

> *"I feel like if you did have a serious complaint to make, it has to go up through so many levels that it's not worth doing it... And even if you do document it now, it's just, you kind of feel it just gets put on a system and that's it, it don't get dealt with" (4: 273-277).*

> *"Yeah, and the consequences for physical or verbal violence is very minimal for them. I remember the ward bringing in a contract that patients would sign when they come in to say that violence is not tolerated and if there is abuse, they will be sent to another unit….it doesn't matter, at the end of the day … other patients see it happen and they see zero consequences for it and that sends a message that this is acceptable and I can do that to nurses" (3:293-308).*

Staff reported the non-physical abuse impacted them more psychologically, and left them feeling powerless. This coupled with low perceived control may leave these staff more susceptible to professional burnout.

3.3.4.2 Subtheme: Emotional distancing

When thinking about other ways that staff were impacted by abuse, many reported the need to ignore their emotions, or feeling like they needed to become emotionless in order to continue in their job. This is similar to findings from previous research that indicated more experienced nurses habituate to the exposure of violence, aggression, and abuse over time (Whittington, 2002; Baby et al., 2014). While psychiatric nurses have reported being affected by this, research has suggested they are less likely to experience abuse as distressing when compared to their medical non-psychiatric counterparts (Pekurinen et al., 2017). This is important as it demonstrates an effect on staff's emotional reactions, as well as alluding to the length of time in the role as being important in being able to manage with the impact of abuse;

> *"The attitude of the rest of the team, who a lot of them would be really experienced nurses or support workers who were doing that kind of job for 7/8 years, erm and you had people that you could see that it just didn't bother them and like it did bother me" (3:223-225).*

The message conveyed to less experienced staff, was that others 'put up' with abuse, and therefore abuse was to be tolerated as part of their job. It seems that staff members learn that emotional distancing is an effective strategy for career longevity; *"It shocks you but you acclimatise to it" (4:169).*

"I didn't know that people got assaulted when I was a student nurse. And yeah I think, yeah possibly, more is tolerated the longer you are in the job, you accept more and more. Like what I say I can't tolerate now, probably five years down the line I'll just be used to it" (1:118-21),

Suppressing their personal emotional response, staff were more able to enforce professional boundaries. However this also highlighted the conflict between a nurses' role to provide care, and their duty to protect themselves and others. This is similar to research that demonstrated the internal ethical conflict that seems apparent in mental health nursing (Staniuliene et al., 2013).

"*I remember when I heard it for the first time thinking, 'oh that's odd, that shouldn't really happen, you're not really a punching bag'. It's sad really. It's weird, you're a nurse or a health support worker, you're not a security guard, but it felt like it at the time. There was very little of health support work or nursing at the time that we had that one patient, you were just standing there like a shield between him and the other patients" (3:266-272).*

Systemic Reception

3.3.5 Systemic evaluation

3.3.5.1 Subthemes: Behaviours should be considered abusive but are not / Should be zero-tolerance / Abuse should not be part of the job but is tolerated.

Staff highlighted the discrepancy between what was expected, and was reality at work. As discussed before, the individual perception of an experience may have been that the experience is abusive. However the way in which surrounding systems evaluated that same experience had a moderating effect on the eventual construction of that experience as abusive or not;

> *"I remember when I first worked in a forensic ward and it was work experience in medium secure. I remember talking to a team of nurses there and they said that they constantly get hit and smacked and they never report it and they told me to, but they don't do it. It was like it was common knowledge that its part of the job and you should just put up with it" (3:261-266).*

The language used depicted violent and harsh imagery; 'cage-fighter', 'punch bag', 'brainwashed', and 'smacked'. This seems to reflect the harsh nature of working in a forensic psychiatric setting which, as noted above, is in opposition with heath care and nursing roles in general. As noted previously, an inability to reconcile this cognitive dissonance can result in staff leaving the profession altogether. Research has documented that this internal conflict is prevalent in the mental health care sector (Nolan & Smojkis, 2003) in the UK, which is thought to have contributed towards a trend of nurses leaving the profession altogether. This has contributed to the nursing shortages experienced by NHS mental health trusts. Research by Nolan and Smojkis (2003) concluded that "staff cannot reconcile a caring role with working in the NHS. It seems health care has become emotionally

distant and the profession's long-standing attachment to caring through interpersonal relationships has been overridden by a fast-track system of care management" (2003, p.374).

It seems that the dominant cultural discourse of the ward systems advocates acceptance of abuse, and this is more influential, giving staff the sense of having been 'brainwashed';

> *"I remember reading it back then, and I was about 23 and I thought, "I'm not doing that, that sounds crazy, I don't want anyone to punch me", and then I did the work experience in the medium secure and I kind of just got brainwashed into thinking that it was fine to get punched and other people do it as part of their job and there is no other real option so if you want to have any contact with patients and be a health support worker, you need to take the risk that you will get punched" (3:276-283).*

The difference between the individual evaluation and the systemic evaluation forced staff to be confronted with an internal conflict. Staff felt that they needed to re-adjust their views of what constituted the nursing and support role;

> *"I didn't know you had to be tough to be a health support worker, I thought you needed to be compassionate, be somebody that cares and wants to make the other person's life better. I didn't know you had to be, I don't know, a cage-fighter" (3:336-339).*

3.3.5.2 Subthemes: Judgement from others / Can't let the team down.

Staff emphasised the importance of understanding the likely reaction from peers, managers and the organisation. Were they to believe they would receive support, staff felt more likely to report feeling abused. However the majority of staff held the understanding that they were more likely to receive judgement, or to be viewed as 'weak', particularly when reporting non-physical abuse. Research has documented that staff support, plays an important role in reducing burnout, adverse psychological effects, and staff leaving the job (Rushton et al., 2015); *"I think there's very much a culture of you know, we have to come across as strong, and can't be vulnerable and can't show any weakness" (1:133-134).*

The discourse and construction of abuse systemically indicated to staff that some types of abuse are seen as more serious than others, and therefore the 'less serious' abuses, were viewed as almost trivial. It seemed to have a silencing effect on the individual's perception of abuse; "A*nd I think a lot of the attitude is well, even among staff is "don't work in this environment if you can't tolerate it", so it's almost as if you're forced to tolerate it really" (7: 122-125); "You don't even want to say how you feel. Because you will be made to feel like you are just not good enough" (3:334-335); "Yes, if you didn't deal with it… then you would be ridiculed and made to feel like you're not… like maybe you shouldn't be doing that job; from the team" (3:118-20).*

Another effect of this judgement was that staff felt unable to attend to their personal needs for fear of letting the team down, and what further judgement that may bring;

> *"It's a human reaction when somebody charges at you or when somebody tries to smack you in the face that you try to duck or run or move away, and she would be brought down about it constantly by the other members of the team. That she's not reacting quickly enough, that she's not grabbing the arm quickly enough to prevent him from hitting another person. And I think I was scared of them a lot" (3:198-202)*.

As such, over time staff members silence their personal perceptions and needs to align their professional identity with that of the dominant cultural discourse. Their tolerance increases over time, and this perpetuates the issue of under-reporting; *"I didn't really want to be a failure in my team's eyes so I was just not really taking the time off. Or telling anyone that I was finding it really hard" (3:238-240).*

Some more experienced staff had adopted the systemic belief themselves, despite having also spoken about abuse being intolerable. One consequence is that individuals either have to tolerate more abuse and run the risk of burnout, or accept that they are affected by abuse and suffer judgement from the systems around them; *"I think you would be stupid not to think you're not gonna get abuse from time to time so yeah I do think you got to tolerate a lot more at work" (5:118-21).*

> *"I think that in the job we are in, if you, like if a service-user just shouts at you or, but it's not like threatening or anything, some people might view it as abuse but if you can't kind of handle that kind of reaction then maybe you shouldn't be in that job" (8:40-43).*

"I don't think it should be part of the job but then I think it's naïve to think it's not part of the job. You shouldn't come to work and expect to get assaulted but at the same time, if you don't accept that then you're going to leave the job quickly" (1:73-76).

3.3.6 Systemic reaction

3.3.6.1 Subtheme: Lack of systemic support

Participants agreed that team and organisational support was essential in order to deal with feeling abused, however most participants noted a difference between what they felt was needed, and their experiences of organisational support; *"I think the only way it's dealt with is you say something to your manager and they tell you to brush it off and that's it" (4:238-39); "I just don't rely on that upper management to come and support me" (7:274-275).*

"The thing is you know, I could sit with a load of managers who don't work on the floor you know and people who develop policies and things like that, and every one of them will sit there and say, 'no that's not how it is', and 'that's not how it should be' and 'you should be getting support and supervision'. That's all there, but doesn't mean it's not gonna happen, you know, should we accept it as staff? No we shouldn't, but we do" (7.360-66).

Here, staff have been influenced by their previous experience of trying to gain support from the organisation or the systems around them (for example ward managers or hospital managers). Their previous experience has been that they cannot rely on systemic support which has created their fore-structures for what to expect, should they experience abuse again;

"Now as a student nurse, that's a pretty scary situation to be in and I spoke to my manager and he said 'are you okay do you want to fill in an IR1 form?' and that was it. So on reflection you know of not even being a qualified nurse, that's the response you get from a team you know, of nurses, you know it just seemed like there were no support there whatsoever. So that already put a doubt in my mind about the support you get around being assaulted" (7:82-89).

This support was pragmatic in terms of getting time off following an incident and having a means to document it, but it was also important to have the recognition from the system that they have been abused, rather than to 'brush it off'.

"*I just kind of want there to be some kind of support for people to, to, I want somebody to say, in black and white writing that it's not okay for the kind of abuse that you get and that the abuse isn't just the punching and kicking, it can be anything" (4:327-330).*

3.3.6.2 Subtheme: Lack of emotional support

Staff were clear that in addition to pragmatic support, emotional support was essential, which currently they felt was absent;

"Like I say, you can physically deal with the assault erm, and then you can gain a lot more support from people if they have actually seen an assault or read about an assault taking place. But if its constant intimidation or threats etcetera, it's not always seen and picked up by other members of the team and I think then, their judgement comes in as well and they say 'Really? Did that happen or

do he just not get on with that person?' And there's a certain element of that that goes on" (6:165-71).

"I think it is actually worse, it is for me. If you don't feel supported I think it's absolutely, I think it's worse. I'd rather be dealing with physical acts of violence against me then having to defend myself to the team all the time. I mean you can't do this job if you don't get support, if people don't support you in what you do. It's just, you just can't do it, there's no way. I don't feel that people could" (6:178-83).

This is supported by previous research (Gerberich et al., 2004), which has suggested that adverse effects such as burnout and high staff turnover, are more common and prevalent with non-physical than physical abuse. The NICE guidelines suggest that even smaller organisational responses can help staff feel supported following incidents of abuse, for example providing information on normal responses to trauma. This conflicts with staff's accounts in the current study; *"There's no, what feels like enough supervision and support and care for the staff. You're just kind of left shell shocked and people forget that" (7:98-100).*

"You realize that that is someone going for my neck, they could have killed me. You know and the reaction of the staff was nothing, no reaction whatsoever, you know you are kind of just like, jeeze! I was shocked I mean I was just, 'cause I remember sort of sat there almost like, did that just happen? What?! …There was nothing. Just write an incident report and that was it" (7:151-164).

Furthermore, staff described receiving blame-like reactions from systems; *"And like I said, some of the older support workers said 'now lad, you won't sit with your back to anybody again will you?' " (6:67-71); "It were certainly like, right something's happened to you, take a deep breath and get on with it, get back to it, you know, deal with it, learn from your experience" (6:85-87).*

3.3.6.3 Subtheme: Need for training and education

Education and training was seen as an organisational responsibility with all participants proposing the need for appropriate, regular, and more thorough training to be offered regarding how to both prevent abuse at work, and manage it post-incident. Staff highlighted that existing training was inadequate, and there was a lack of training or education regarding non-physical abuse. The lack of training was perceived by staff as a lack of care from the organisation; *"When it's something personal to you [verbal abuse] … you kind of know there is no set way to deal with it; there is no course to go on to sort that one out" (4:210-212);*

> *"All the policies are written so this doesn't happen, and you are being taught the prevention of violence techniques…but that's not the way it looks in reality… in reality, it does happen and it happens a lot, and the training that you get is not useful, it's not adequate" (4:313-323);*

> *"And the training that we get, it's inadequate… It doesn't look like that… because it's not really what the job is about and you're expected to deal with it physically, even though you're not physically equipped to deal with it" (3:176-187);*

> *"We get trained a hell of a lot different to the doctors and many of the other disciplines, you know we get, we do get a lot more C&R training, PMVA training. So already I think that feeds into, 'you're the ones that deal with it'" (7:367-370).*

The conflict between the organisational ideology of a 'zero-tolerance' approach and the pragmatic reality of working in forensic psychiatric nursing is underlined once again; the systemic reception informs how the individual comes to perceive the abuse, and their individual perception informs how they report this abuse to the systems in a perpetuating cycle.

In domestic violence literature (Loseke & Cahill, 1984) the perpetuating cycle is what keeps victims from feeling able to leave an abusive relationship. The 'system' in which they are trapped makes them feel that the abuse suffered is not serious and that if they experience it as abusive, they are weak. As such the victim makes cognitive adjustments to justify staying in the 'system', and over time they become desensitised to abuse and tolerate it more. If this metaphor was extended further, another problem arises when the victim has a child who observes abuse being accepted. The child in this metaphor being represents a new member of staff in the current context, who is initially shocked by the level of abuse, but observes that it is socially accepted. Social learning and social convention dictates they align their beliefs to conform to this culture to fit in and avoid judgement.

This is not to say that tolerance is akin to acceptance. As discussed earlier in this chapter, an individual may outwardly tolerate increasing abuse to conform to the dominant culture, but internally hold the belief that they still

perceive it as abusive, thus creating cognitive dissonance. As previously noted this has ramifications for staff, service-users, and the organisation. In addition, this raises the question of whether nursing staff in particular struggle with this process as the hierarchy is incorporated into the nursing structure. In terms of management structures, new, less-experienced nurses are expected to learn 'on the job' during their preceptor-ship, which is not common to all jobs, but is common to NHS nursing roles. At this stage, nurses witness senior colleagues tolerating abuse and must make the decision to withdraw from the work, or to adjust to the reality of qualified nursing.

3.3.7 Quantitative results

The sample (*N*=160) consisted of 110 Females and 50 males with an age range of 20 to 65. The mean age of the sample was 36.5 years (*SD*=12.4, *Mdn*=32, *Mode*=24) and the amount of experience ranged from 2 to 38 years with a mean length of time in their role of 10.8 years (*SD*=9.9, *Mdn*=8, *Mode*= 2). See Table 8 for other demographic information.

The clinical sample (*N*=63) had an age range of 20 to 65 years with a mean age of 37 (*SD*=11.7, *Mdn*=34, *Mode*=27). The amount of experience ranged from 2 to 38 years with a mean of 12.8 years (*SD*=11.2, *Mdn*=10, *Mode*=2). The non-clinical sample (*N*=97) had an age range of 20-42 years and a mean age of 37 years (*SD*=12.9, *Mdn*=31, *Mode*=24). The amount of experience in this group ranged from 2 to 38 years with a mean of 9.5 years (*SD*=8.8, *Mdn*=8, *Mode*=2).

Table 8 shows the characteristics of the sample based on the demographic information collected; clinical status (clinical or public sample), gender

(male or female), previous experience of forensic working or none, previous experience of abuse or none, currently a student or not, age, and years of experience.

Table 8. Frequency Data of Survey Participants (N=160)

				Clinical		**Non-Clinical**	
				Experienced Abuse		Experienced Abuse	
				No	Yes	No	Yes
Female	Forensic Experience	No	Non-student	2	3	44	7
			Student	0	0	8	0
		Yes	Non-student	2	32	2	4
			Student	0	5	0	1
Male	Forensic Experience	No	Non-student	0	0	22	6
			Student	1	0	2	1
		Yes	Non-student	0	17	0	0
			Student	1	0	0	0

Figure 3 gives a visual representation of how the clinical and public samples responded on the vignette question with regards to the point at which they considered the behaviour abusive. This is referred to as Abuse Ratings. Higher ratings indicate participants perceive abuse as occurring later in the scenario.

3.3.7.1 Non-Parametric analysis

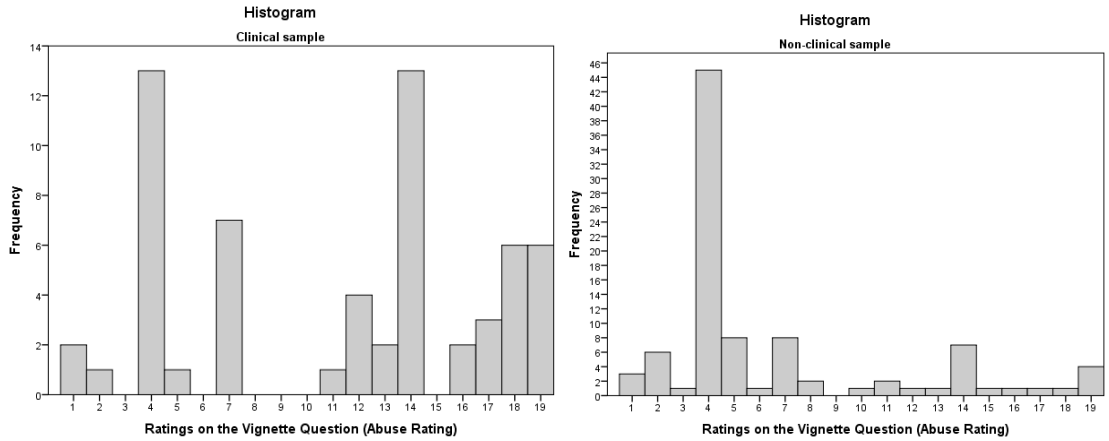
The results of Mann-Whitney tests and Kendalls Tau tests are presented below to explore the demographic variables in the clinical and non-clinical samples. These tests were chosen because during the data cleaning process the examination of boxplots highlighted a number of outliers within the non-clinical sample group. Levene's test for equality of variance indicated that the data were not normally distributed and violated equality of variance. Instead, non-parametric tests were used in the analysis as these tests do not assume equal distribution or homogeneity of variance, and are suitable when outliers are present (Zimmerman, 1994; Tolmie, Muijs &

McAteer, 2011). Therefore Mann-Whitney tests were appropriate in order to assess differences in continuous data (vignette response) against a dichotomous variable (such as gender). Non-parametric Kendall's Tau tests were also used to examine the continuous data (age and years of experience) as they were not normally distributed, and in a sample with several tied ranks Kendall's statistic is considered a better estimate of the correlation (Field, 2009). The assumptions are detailed below.

Clinical sample compared to non-clinical sample

Normal distribution of the clinical and non-clinical sample was checked using visual inspection of histograms which suggested data were not normally distributed. Tests exploring skewness (z=3.297, p<.001) and kurtosis (z=-2.724, p<.05) indicated significant non-normality. Levene's test was conducted to assess homogeneity of variance between groups. The variances were not equal for clinical and non-clinical samples $F(1,158) = 14.34$, p<.001. As tests of assumption indicated the data were not normally distributed, a non-parametric Mann-Whitney test was used to explore data. This found that rating of abuse scores by the clinical sample (Mdn=13) were significantly higher compared to those of the non-clinical sample (Mdn=4), U=1813.5, z=-4.453, p<.001, r=-.35.

Figure 3. Histograms of the Ratings of Abuse (Abuse Rating) Chosen by the Clinical and Non-clinical Samples on the Vignette Question



Previous experience of forensic working

The distribution of the data for the sample who had previous experience of forensic working and the sample who did not, were checked using a visual inspection of histograms which suggested the data were not normally distributed. Tests exploring skewness (z=2.146, p<.05) and kurtosis (z=4.864, p<.001) indicated significant non-normality. Levene's test was conducted to assess homogeneity of variance between groups which showed the variance were not equal for the sample who have had previous experience of working in a forensic setting and those who had not F(1, 158)=14.58, p<.001. As tests of assumption indicated the data were not normally distributed, a non-parametric Mann-Whitney test was used to compare the Abuse Rating based on whether participants have had previous experience working in a forensic service or not. This found that the rating of abuse scored on the vignette by the sample with previous forensic experience (*Mdn*=12.5) was significantly higher to those of the sample who had no previous forensic experience (*Mdn*=4), U=1715.5, z=-4.72, p<.001, r=.37.

Previous experience of abuse

Distribution of the data from the sample who have previously experienced abuse at their place of work and the sample who had not were checked using a visual inspection of the histograms which suggested the data were not normally distributed. Although the tests of skewness showed normality in (z=0.526, *ns*) the test for kurtosis showed significant non-normality (z=5.2887, p<.001). Homogeneity of variance between groups using Levene's test was conducted, which showed the variance was not equal for the sample with previous experience of abuse and the sample with no previous experience of abuse at work $F(1,158)=19.44$, p<.001. As tests of assumption indicated the data were overall not normally distributed, the non-parametric Mann-Whitney test was used to explore the data from the sample that have previously experienced abuse at their place of work compared to those who had not. This found that those who have previously experienced abuse at work chose ratings (*Mdn* =10.5) that were significantly higher to those of the sample who had no previous experience of abuse at work (*Mdn*=4), U=2166, z=-3.599, p<.001, r=.29.

Student status

Distribution of the data of the student and non-student sample were checked using a visual inspection of the histograms which suggested the data were not normally distributed. Tests exploring skewness (z=12.39, p<.001) and kurtosis (z=9.73, p<.001) indicated significant non-normality. Homogeneity of variance between groups using Levene's test was conducted, which showed the variance was not equal for the student sample and the non-student sample, $F(1,158)=10.48$, p<.001. As tests of

assumption indicated the data were not normally distributed, non-parametric Mann-Whitney test was used to explore the data. This found that those who were students (*Mdn*=4) did not have significantly different ratings on the vignette compared to those who were not students (*Mdn*=5), *U*=1197.5, *z*=-0.769, *ns*, *r*=.06.

Gender

Following on from this, other demographic differences were also explored. The distribution of the data regarding male and female samples (Gender) was checked using a visual inspection of histograms which suggested the data were not normally distributed. Tests exploring skewness (*z*=4.255, *p*<.001) and kurtosis (*z*=7.625, *p*<.001) indicated significant non-normality. Homogeneity of variance between groups using Levene's test was conducted which showed the variance was not equal for male and female samples *F*(1, 158)=17.82, *p*<.001. As tests of assumption indicated data were not normally distributed, a non-parametric Mann-Whitney test was used to explore the data. This found that the males' ratings (*Mdn*=6) were not significantly different to those of the female sample (*Mdn*=5), *U*=2398.5, *z*=-1.328, *ns*, *r*=.11.

3.3.7.2 Non-parametric rank correlations

Following on from this, other demographic variables were also explored using correlational analysis. During correlational analysis, only the data from the clinical sample were used to explore if age or amount of years' experience were important factors in how people in forensic inpatient jobs rate abuse in this given scenario. See Table 9 for the correlation matrix of the clinical sample alone.

Age

The distribution of the data regarding the age of participants (Age) was checked using a visual inspection of the P-P plots and histograms which suggested the data were not normally distributed. Tests exploring skewness indicated significant non normality (z=2.1, p<.05), and tests for kurtosis indicated non-significant non-normality (z=1.32, *ns*). As the tests of assumption showed a significant skew in the data and as there were large amounts of tied ranks in the data, a Kendall's Tau test was conducted which showed age as being significantly correlated to the ratings of abuse (t=.203, p<.05) in the clinical sample.

Years of Experience

The distribution of the data regarding the number of years the participants have been in their jobs (Time in Job) was checked using a visual inspection of the P-P plots and histograms which suggested the data were not normally distributed. Tests exploring Skewness indicated significant non normality (z=3.29, p<.001), and tests for kurtosis indicated non normality (z=.26, *ns*). As the tests of assumption showed a significant skew in the data, and as there were large amounts of tied ranks in the data, a Kendall's Tau test was conducted on the clinical sample which showed that 'Abuse Rating' was significantly correlated to years of experience (t=.247, p<.01).

Table 9. Correlation Matrix of Age, Years of experience, and Abuse Rating for the Clinical Sample

	Abuse Rating	**Age**	**Years of Experience**
Abuse Rating	-	.203*	.247**
Age	.203*	-	.704**

Years of Experience	.247**	.704**	-

**p<0.01, *p<0.05

Age and years of experience were also highly significantly correlated with each other. Follow up correlational analysis on the non-clinical sample indicated that age was positively and significantly correlated with Abuse Ratings (t=.526, p<0.01), but years of experience was not (t=.014, *ns*), suggesting that the years of experience may be a contributing factor in appraising abuse for those who work clinically in forensic services, but age may not be.

There were significant differences between groups based on how they rated abuse on the vignette question (Abuse Ratings), depending on their profession (clinical /non-clinical) and their previous experiences (of forensic work, or of abuse). There were no significant differences found based on gender or student differences.

3.3.8 Summary of results

This research aimed to explore forensic psychiatric staff's lived-experiences of abuse suffered at work. In particular the aims were; first, to explore how staff made sense of their abuse experiences, and how they came to consider them as acts of abuse; second, to explore the potential differences or similarities between how a clinical population (staff) and a non-clinical population (public) appraised an abusive scenario with regards to their level of tolerance; and third, to examine the potential influence of other demographic variables (such as age, gender, previous forensic experience, amount of experience, and personal experiences of abuse).

In summary, the first aim was achieved through qualitative analysis of interviews with frontline staff, and this contributed to the understanding of how abuse is conceptualised by these professionals. The second and third aims were achieved through quantitative analysis, demonstrating that the clinical population chose significantly higher ratings of abuse as compared to a non-clinical sample; and that those with previous experience of being abused at work had significantly higher tolerance of abuse on the vignette as compared to those that did not. Student status and gender did not seem to contribute to how abuse was rated, indicating that this is not an important factor in determining tolerance. This is different from previous research, which has suggested there are gender differences in how abuse is received and reported (Shields & Wilkins, 2006).

3.4 Discussion and conclusion

Working in a forensic psychiatric hospital has its inherent tensions yet staff spoke openly and frankly of their experiences. The issue of abuse is a widely varied topic within this population, yet an issue that all agreed was relevant and therefore triggered a range of responses. As Delaney et al. (2001) pointed out, research of this kind evokes a range of individual responses and emotions that can be difficult to organise in a collective manner. However using IPA the individual responses were analysed and clustered into categories that indicated several common themes and highlighted some conflicts which represents the struggle with constructing the experiences as 'abuse' for this population.

The qualitative and quantitative data, when considered together, reveal some interesting findings that support previous literature, while also posing

some new questions. The qualitative data support previous research in that those who work in a forensic inpatient hospital tend to have a higher threshold when conceptualising abuse (Delaney et al., 2001; Nachreiner et al., 2007; Snyder et al., 2007), and as such may not consider reporting 'lower-level' abuse, thus adding to the issue of unclear prevalence ratings (Forrester, 2002). The qualitative data substantiates this and offers greater insight into some reasons for this. For example, staff come to view abuse as part of the job role, or over time perceive abuse as inevitable, and thus not worthy of reporting. The quantitative results determined that age was a relevant factor in the way abuse was rated. Again, the result of this research corroborates previous research (Whittington & Wykes, 1994; Arnetz, Arnetz & Petterson, 1996) which has demonstrated that older and more experienced nursing staff members tolerate higher thresholds for abuse. The desensitisation that occurs over time and the lack of adequate support or response from others, leads to staff members having an increased threshold for abuse, and in turn reporting it less (Blair & New, 1991; Chou et al., 2002). This corroborated what participants were saying in the interviews; that they certainly do come to tolerate more abuse over time in the job.

Other reasons regarding high tolerance and low reporting are related to apprehension for judgement from colleagues, managers, or the organisation. The perception staff hold about how their colleagues or how the organisation will react to their accounts of abuse, informs how they come to see their experience over time. The more their experience is dismissed or not taken seriously, the less likely they are to report it, and over time they internalise the message that these acts are not as abusive

as they once thought. The theory of learned helplessness (Seligman, 1972) depicts a similar cyclical process by which one becomes resigned to adverse stimuli after repeated attempts and failures to avoid adverse stimuli. In this context, the nursing staff come to accept that they will experience abuse, and that they are unlikely to be able to change this and therefore resign themselves to tolerate it; which the participants in the research study termed "powerlessness".

This would also suggest though, that if staff were to experience managers and organisations as more receptive to staff reporting abuse, as well offering more supportive responses, the feedback process might over time facilitate a culture wherein staff feel empowered, supported, and able to report abuse without fear of judgement. Thus the 'conceptualising abuse' model could also affect positive change.

This study has contributed to the body of literature exploring the abuse suffered by psychiatric nursing staff, and establishes a foundation for further inquiry. The qualitative and quantitative elements employed in the study would benefit from expansion and examination in further detail in future research, perhaps as substantial studies in their own right.

3.4.1 Limitations

3.4.1.1 Design of vignette

One limitation of the study design is that the quantitative element was a small component of the research, in order to triangulate some of the qualitative themes. As such more could have been made of the quantitative element, in terms of expanding the use of the vignette methodology. As noted previously, some studies use a multi-vignette design to assess

participant reactions across different situations or contexts. Perhaps future research can explore this angle further, to determine if some of the themes that have emerged from the qualitative element of this study, have an impact on the way abuse is conceptualised further. For example, assessing if different vignette scenarios exploring the 'mad versus bad' dynamic, has some impact on the way abuse is rated.

Although the vignette in this study was checked for face validity by a group of nursing staff as to the escalating patterns, there are limitations to this approach. It assumes that that all participants hold the sequence of events as truly increasing in severity, but this is a subjective interpretation. It may be that not all participants believe that being sworn at, for example, is less abusive than being threatened. Therefore aside from the face validity, the validity and reliability of this measure is unknown. The results of the survey allowed for comparison across groups; however causality cannot be inferred from this alone. For example, although age was correlated to the abuse ratings, indicating that older people rated abuse at the more severe stages, this does not necessarily imply that age predicts one's tolerance for abuse.

3.4.1.2 Data generated

The type of data that were generated by the vignette method was ordinal, which has limitation in that it assumes that there is equal distribution between the items. For example, that there is an equal difference between item one and two in comparison to item two and three. However, given the scalar nature of the vignette in this research one cannot assume that the difference between responses is equidistant, even though the numbers assigned to those responses are (Sullivan & Artino, 2013) which is problematic in terms of validity. It was not possible to do a full validation

study of this tool within this research but in the future it might be useful to psychometrically assess the tool via a pilot study for example, or to use an already validated tool to assess tolerance. To the researcher's knowledge there was no such tool available at the time that appropriately addressed the specific research question regarding thresholds of abuse tolerated. Future research may benefit from using a different approach to this vignette question altogether in order to better address the research question without this issue. One potential method could be to offer a series of statements describing different behaviours such as 'swears at you' and 'punches you' and to ask participants to rate on a 5-point Likert scale how abusive each act would be for them. These statements in isolation though, may suffer from a lack of clinical context, which a vignette method offers. Further, as with all forced-choice questions, there is the concern that the researcher's understanding of the terms provided are not the same as the respondent's understanding, for example, if asking the question 'how abusive do you rate this behaviour?', the Likert scale may offer: 1)'very abusive', 2)'somewhat abusive', 3)'a little abusive' and so on. The understanding of these terms is subjective to the individual and might start to lose meaning depending on the amount of points on the scale, for example 'very abusive' and 'extremely abusive' may be hard to distinguish from each other. Alternatively, some researchers have used a Visual Analogue Scale method (Wewers & Lowe, 1990) that provides a horizontal line and asks respondents to mark on it, for example 'how abusive do you find the following statements; 'the service-user swears at you'. The participant marks on the line that reads 'not at all abusive' at one end and 'the most abusive' at the other end. This is more commonly used as a

means of measuring subjective characteristics such as attitudes, opinions or perceptions (Wewers & Lowe, 1990), but holds the same limitations regarding subjectivity.

The literature on the use of vignettes across the qualitative–quantitative spectrum demonstrates that results can benefit from the combination of the nuance of the qualitative elements such as the contextual information, and the objective outcomes generated by the quantitative data (Given, 2010; Hughes & Huby, 2012; Gourlay, 2014).

3.4.1.3 Sample issues

The sampling of this research represents a potential limitation in that the clinical and non-clinical sample was not as separate as the researcher would have liked for sample integrity. In distinguishing the clinical from the non-clinical sample, they were separated based on current employment in a forensic inpatient ward or not. Participants were categorised in the non-clinical sample if they worked in a forensic service, but not on the ward, for example, in an administrative role. Previous experience of working in a forensic inpatient ward was also collected which makes the distinctions between clinical and non-clinical sample less clear. For the purposes of analysis, the clinical sample was separated from the public sample by current employment, regardless of whether or not they had previously worked in this setting. If this research was repeated it might be useful to have three categories; 'currently works in forensic inpatient ward'; 'not currently but has previously worked in forensic inpatient ward'; and 'never worked in forensic inpatient ward'. However, in the current research, separating into three groups would have led to the second category having only six participants which may not have yielded useful or reliable results.

Future research could add 'those who work in non-forensic psychiatric inpatient wards' as a fourth category, to determine if the nature of forensic settings makes a difference in the conceptualisation of abuse. Due to the division of the sample in this research, the contamination of the clinical and non-clinical sample means that the results must be interpreted with some caution as to their generalisability.

It should be noted that the gender information collected showed that in this sample more than twice as many females as males responded overall, and in the clinical sample 69% were female. In a clinical sample of mental health nurses, would not be an uncommon ratio and so this sample can be considered representative of a nursing population. However, in the non-clinical sample 68% of this group were female, which is not representative of the general population which, in 2017, has been reported as 50.5% females to 49.5% males (Office for National Statistics, 2017).

3.3.1.4 Data collection & analysis

The rigour of the data collection can be called into question. A snowball recruitment method does not allow interrogation of who was able to access it, other than those that responded to the survey. The cross-sectional nature of the study meant that only those who wanted to do the survey completed it. The survey required participants to self-report their level of tolerance for challenging behaviour before they reached the point at which they would feel abused. As with any self-report measures, this could invite response bias. In order to combat this, the survey was designed so that participants were anonymous, in the hope that this would encourage accurate responses, thereby limiting social desirability effect.

Similarly, only those who wanted to participate in the interviews nominated themselves to participate, which could impact sampling bias. The interviews were held during working hours, although staff were allocated protected time away from the ward to participate. Measures were taken to reduce the potential response bias this might cause, such as holding the interviews off the ward, outside of the forensic service, in a neural interview room. Another limitation of this research was the quantitative data analysis. Due to the non-normality of the data, further statistical testing was difficult to achieve. However, for the purposes of this research, differences between groups and correlational analysis were adequate to achieve the aims of the study.

It must be noted that although IPA recognises and accounts for the analyst's fore-structures, it is ultimately a subjective process. As the primary analyst of the data in this study worked as a trainee forensic psychologist in the service, it should be recognised that this may have had an impact on the analysis, despite the analyst's best efforts. For this reason a background to the analyst was included (see Appendix F). The method that inherently acknowledges the fore-structures, and acknowledges the double hermeneutic endeavour, therefore it was considered appropriate for the research aims. Further research conducted in this area might consider conducting the research in a setting external to the one in which they work, or having the analysis conducted by someone with no forensic experience to reduce potential bias. On the other hand, the analyst's knowledge of forensic services may have aided a richer insight into the data.

As with other research considering a lived-experience, the individual perspective is paramount, however some have suggested that this creates a barrier to generalisability of results. IPA was chosen specifically because it is concerned with the idiographic endeavour of interpretation, and this study was an exploratory study, and not aiming to prove or reject a hypothesis. These results can offer some clinical and research utility in that they can inform recommendations for future study.

3.4.2 Recommendations and clinical utility

One of the main themes in this research was the dissonance, conflict, and dialectics that arose from the individual perception and the systemic reaction, which was important to the identity of the individual both personally and professionally. For example, managing the conflict between the professional nursing heuristic of delivering care, and the pragmatic forensic need for violence management. This raised the question of whether this is a dilemma unique to nursing, or an experience shared by other professionals. For example, part of a psychologist's role is to work with holding two positions in mind, without experiencing mental discomfort (cognitive dissonance), and still retain the ability to function effectively (Milton, 2010). This has been cited as essential for empathy and useful for the effective facilitation of groups like reflective practice which are important to the psychologist's role. Therefore future research may be useful to explore whether cognitive dissonance is a nursing-specific struggle in regard to healthcare versus security, and whether this is specific to forensic psychiatric working or is present in other psychiatric settings where violence occurs.

This research highlighted the importance for staff assigning a 'reason' for why they had been abused by a service-user. As noted previously, this raises questions in terms of, what the function of the abusive behaviour was, versus the perceived intention of the behaviour. It appears that nurses tolerated abuse that they perceive to be driven by 'mental illness' more.. This perhaps links to how the legal and forensic systems come to conceptualise violent crimes committed by those with mental illness; they are regarded as having diminished responsibility, as being unfit to plead, or are considered not guilty by reason of insanity (Law commission, 2013).

Future research could explore the perspective of the service-user. Research could examine service-users' views of their violent, aggressive or abusive behaviour towards staff, or explore service-user's perception about abusive behaviours that occurs in general on wards, to explore the function of these behaviours. Inpatient psychiatric systems are complex and therefore to gaining a service-user perspective would be vital to obtain an accurate impression of how people in these services make sense of abuse. In addition, it is recommended that training or teaching be offered to nursing staff to develop their understanding of the function of violence or aggression. Chapter five is a case study of a violent service-user. This will include a formulation of why the service-user uses violence, and an evaluation of an intervention to reduce aggression and violence. This may contribute towards developing an understanding from a service-user perspective, which may also contribute to staff and team understandings.

In terms of training, there are several areas that have been highlighted by this research. First, more adequate violence prevention training needs to be

offered to inpatient staff working on the frontline. Participants suggested the current training was not thorough enough to prevent physical violence, and neglected other types of abuse altogether. Perhaps training should include verbal de-escalation practices, information regarding other types of abuse, and training on what to do procedurally when abuse occurs. This is supported by the results of the earlier review which suggested that training did in fact increase staff's knowledge and skill following even brief interventions, suggesting that this is one relatively low-cost, low-resource intervention that could have significant clinical benefits.

Staff experienced the organisational culture as judgemental and blaming. Therefore, it is recommended that either training or ward development work be implemented to adjust these 'toxic' work environments, in order to foster an inclusive and supportive environment. It is important that staff feel supported by their team and by management for staff retention and wellbeing (Johnson et al., 2011; Chapman & Styles, 2006).

In addition to altering the systemic reception culturally, the participants were clear that there was little in the way of official procedures to report abuse that was not physical violence. Perhaps initially some consensus is to be reached, at least at a local level, as to what constitutes abuse, and as such this would give nursing staff clear permission to report it when it occurs. In addition, having a clear boundary here can be beneficial to the service-users, and would give them realistic expectations of how abusive behaviour in the community will be managed. Staff in forensic services should be supported by the organisation to press charges should they wish to in criminal circumstances.

Since the completion of this study, the NHS Trust has changed from the IR1 incident reporting system for physical violence, to a DATIX system that is online and non-exclusive. This means that staff do not need to seek out a paper form, they can access the reporting system from any Trust computer, which may help increase accuracy of prevalence ratings. In addition, this method does not restrict the meaning of 'incident' and therefore can include any behaviour that is abusive, including racial abuse, threats, emotional abuse, and so on. This may have the secondary effect of demonstrating to nursing staff that the organisation is willing to hear and receive all types of abuse, which in turn may alter the negative fore-structures that staff have about the organisation's lack of caring response.

In addition to the procedural support following abuse, it is recommended that there be some level of organised emotional support. Staff in this study felt unsupported by managers and expected to return to work immediately. As noted previously, self-care may be undervalued in these settings, because nursing staff's primary objectives are to care for others. Perhaps in the development of more supportive ward cultures, self-care can be fostered and supported, through the use of effective supervision, reflective practice, and leave from work following incidents.

Since the completion of this research, the NHS Trust has removed the zero-tolerance policy. Staff spoke of how this policy set up unrealistic standards in the first instance. When abuse occurred, there were very few or no consequences, thus creating the impression to staff and service-users that there were in fact no consequences for abusing staff. This set up unrealistic expectations for service-users, and gave a false impression of how abuse

against a person would be dealt with in the community (that is, police involvement, criminal charges, etc.). This created the cognitive dissonance that staff explained. Their personal belief was that they should not have to tolerate being abused at work by people they are trying to care for, however the feedback systemically is that they should deal with it anyway, because the organisation was not committed to a zero-tolerance policy. Since the removal of the zero-tolerance policy, staff have more professional control to deal with abuse and aggression from service-users in a clinically appropriate way. This research suggests staff would benefit psychologically and emotionally from feeling a greater sense of control and agency in how they manage an abuse following an incident.

These two changes demonstrate that the 'conceptualising abuse' model can be altered to affect positive change. If staff's understanding is that the systemic reception will be supportive, validating, and empowering; they may then be able to report the abuse as well as continuing to work in an environment where 'abuse is part of the job'. This therefore encourages a healthier culture wherein abuse is recognised, staff experience is validated, and reporting is encouraged. This is supported by the literature which suggests that even small changes such as recognising when abuse occurs can have positive therapeutic benefits following an instance of abuse (NICE, 2005). Indeed these guidelines propose that large interventions such as staff debriefs are non-effectual and these smaller changes are much more important. This also recognises that abuse in this line of work is likely to continue, however there are things that can help staff to manage them better.

In summary this research has offered an in-depth understanding of how abuse is experienced in one forensic hospital, which has allowed for the development of several clinical and practical recommendations. The novel nature of exploring abuse from this perspective has aided in the development of a model which can explain how negative patterns can become cyclical in forensic inpatient settings, and also how these cycles can be altered. Although there are some limitations to this research, it offers a useful starting point for future research to build upon.

CHAPTER 4: PSYCHOMETRIC CRITIQUE

A CRITIQUE OF THE PSYCHOMETRIC PROPERTIES OF THE BRYANT AND SMITH AGGRESSION QUESTIONNAIRE

Abstract

AIMS: The Bryant and Smith Aggression Questionnaire (AQ-12, 2001) is reviewed with regard to the psychometric properties and clinical applicability of the tool. The original paper is reviewed and critiqued against several studies that assessed the reliability and validity of the tool, and the factor structure of the proposed model of aggression.

METHOD: The results of Bryant & Smith's (2001) original investigations, were compared against other studies which have also tested the psychometric properties of the AQ-12 in several languages (English, French, Spanish, Greek, Dutch, Chilean and Singaporean) and in several different populations (adolescents, undergraduate students, police recruits, air force recruits, drug-dependent population, prison population, assaultive offenders, forensic psychiatric inpatient, and forensic psychiatric outpatients).

RESULTS AND CONCLUSION: The review demonstrated the AQ-12 holds good reliability and validity in several populations and across several languages. Despite the AQ-12 being shorter than other measures of aggression, it retains the same four-factor model of aggression as the Buss Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992) from which it is revised, yet holds superior validity over other models. It is recommended that further investigations explore the test-retest reliability, and the predictive validity of the AQ-12.

4.1 Introduction

The assessment of aggression is a key part of a forensic psychologist's role, not least because those referred to forensic services are referred due to their increased risk of aggression. Such risk makes these service-users difficult to manage by primary mental health services, and assessing risk is a core specialist skill of psychologists in forensic services (Macpherson & Jones, 2004). Risk assessments can be informed by supplementary measures of a person's risk of violence or aggression. In a forensic secure hospital, the assessment of aggression can be useful in determining the needs of the individual and informing relevant risk assessments. In a prison service, a quick and reliable measure of aggression can be necessary to manage the large population sizes, and help to determine those most likely to act aggressively. Clinically useful measures of aggression are also widely used in secure services to assess the outcomes of interventions aimed at reducing aggression or assessing change.

Research in psychology and forensic practice has long been interested in the assessment and prediction of aggression (Morgan, 2007). In order for professionals to develop methods and models for effective management of aggression, reliable and valid assessments are vital to safeguard other service-users as well as themselves as professionals. In clinical areas where aggression can be commonplace, particularly in large populations such as prisons, professionals benefit from an accurate and efficient method by which to assess offenders and to identify treatment needs. Diamond and Magaletta (2006) stated that actuarial measures are useful to classify differences of aggression between offenders. This is preferable over the sometimes lengthy and time-consuming methods that rely on reviewing

historical data, and "complex formulae designed to take into account the index offense, prior rule-violating behaviour, and other relevant aggressive risk factors" (Diamond & Magaletta, 2006, p. 228). In large populations such as prison settings, even standalone tools for assessing anger and aggression can be lengthy such as the State Trait Anger Expression Inventory (Spielberger, 1988) which is 50 items long, and can be complicated to score and interpret (Diamond & Magaletta, 2006, p. 228). In addition, assessments like this are often not publicly available and are expensive since they require specialist manuals, or scoring and assessment guides. Brief psychometric tools therefore have the benefit of efficiency, economy, and relevance, although they lose some individual-level differences that can be gained by the more psychologically-based assessment tools like the Historical Clinical Risk Management-20 assessment (Douglas et al., 2014).

In forensic psychiatric services, cognitive-behavioural interventions are frequently employed to address offender aggression, and in order to assess the effectiveness of such interventions, they need to be evaluated. Often lengthy research or evaluation studies are not feasible in clinical environments (Rychetnik, Frommer, Hawe & Shiell, 2002). As such, reliable and cost-effective psychometric tools that are validated in populations at risk of violent or aggressive behaviour are required for these evaluative studies.

As well as the clinical need for reliable measures, there is a need for efficient measures of 'popular psychological constructs' (Widaman, Little, Preacher & Sawalani, 2011) such as aggression, for research purposes. This

has necessitated the widespread use of brief scales and tests in psychological research (Webster et al., 2014), particularly online research, in order to gather large sample sizes (Naglieri, et al., 2004).

In 2001 Bryant and Smith developed a shorter version of an existing assessment of aggression, which they proposed has allowed for a shorter test that retains its reliability and is appropriate for use in challenging contexts and with the client groups described above. The AQ-12 (Bryant & Smith, 2001) is used in chapter 5 as an outcome measure to assess the aggressiveness of a service-user before and after an aggression-management intervention. The current review assesses the AQ-12, starting with a brief overview of what psychometric measures have been used thus far to measure aggression, and how they have informed the development of the AQ-12. This review then discusses the literature that has examined the psychometric properties of the AQ-12 with regard to its reliability and validity as a measure of aggression, and its use with different populations. This review will conclude with an overall evaluation of the AQ-12 including the strengths and limitations.

4.2 Developmental 1nfluences

Many researchers have created bespoke measures in an attempt to achieve good self-report measurements of aggression. In 1957, Buss and Durkee developed the Buss-Durkee Hostility Inventory (BDHI); a 77-item personality inventory for assessing different types of hostility. The BDHI was a commonly used measure for aggression comprising of seven subscales, which started to allude to the components that manifest in 'hostility'. However, the measure was criticised for using a true-false format,

it lacked test-retest reliability, and it demonstrated an inconsistent factor-structure (Bendig, 1962, Edmunds & Kendrick, 1980). In an attempt to improve upon this, the Buss-Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992) was developed. The BPAQ was designed to be a more efficient, reliable, and succinct measure of primarily aggression. The BPAQ is a 29-item self-report questionnaire, which is subdivided into four subscales: Physical Aggression (9 items); Verbal Aggression (5 items); Anger (8 items); and Hostility (8 items). Respondents are required to rate each of the 29 statements on a 5-point Likert scale describing how characteristic each statement is of the respondent. Studies showed that although the measure had good reliability, structural analysis revealed that the four factors explained too little common variance (i.e. 80%) to be an adequate measurement model of aggression (Archer, Kilpatrick & Bramwell, 1995; Harris, 1995; Williams, Boyd, Cascardi & Poythress, 1996; Harris, 1997). Due to these psychometric limitations, Bryant and Smith (2001) reviewed the BPAQ, and shortened it to a 12-item measure (AQ-12). Initially Bryant and Smith (2001) used three samples (307 American undergraduates, 200 British undergraduates, and 306 Canadian undergraduates) to compare four of the BPAQ's existing measurement models of aggression, to determine if there was already an improved version of the BPAQ. Bryant & Smith (2001) used a further two samples (171 & 170 American undergraduates) to assess the reliability and validity of their proposed shortened version; the AQ-12. In addition, 180 American undergraduates from the first sample completed additional criterion measures to assess the construct validity of the AQ-12. Their work replicated that of others in showing that none of the

models on the existing measures fit the data well, and at best there was 'mediocre' goodness-of fit.

In the development of their tool, the authors omitted items from the BPAQ that had low loadings (i.e. low relationship to the underlying factors) or multiple loadings based on principal component analysis. They excluded items with reverse-scored wording in an attempt to reduce the data down into its basic components, removing any unnecessary parts, which resulted in the 12-item self-report questionnaire (AQ-12). The authors demonstrated that the AQ-12 still holds the same four-factor model as the BPAQ, despite each subscale consisting of only three items, and retains better common variance (model fits the observed data) as tested by the goodness-of-fit indices (*GFI*=0.94). The AQ-12 was designed to be a more clinically applicable and useful tool, particularly in challenging contexts where aggression is present, and where a short and reliable tool is necessary. The psychometric properties and clinical applicability of this measure will be discussed further below.

4.3 Overview of the measure

The AQ-12 is a 12-item self-report questionnaire, which is rated on a 6-point Likert scale and asks respondents to report on how characteristic each statement is of them (for example, ranging from "*completely true for me"* to "*completely false for me").* Examples of items on the AQ-12 include "Given enough provocation, I may hit another person"; and "Sometimes I fly off the handle for no good reason" (see Appendix J for full AQ-12). The authors gave no specific instruction on how to administer the questionnaire and stated no requirements for the assessor in regard to qualifications necessary. The scoring of the measure is simple in that the results are

derived from the sum of the scores. Each subscale (Physical Aggression, Verbal Aggression, Anger and Hostility) can also be scored individually.

4.4 The Characteristics of a good test

Standardised tests exist in order to capture and quantify differences in constructs, such as personality, intelligence, and attitudes, to name a few examples. Although psychological tests have different purposes, the underpinning characteristics of what makes a good test remain the same. There are two broad types of psychometric properties that a test must have in order to be considered a good measure of a particular construct; reliability and validity (Ginty, 2013). More specifically a good test can demonstrate good internal reliability and stability over time. Validity can be tested by examining face validity, concurrent validity, predictive validity, and construct validity. This review will examine these characteristics with regard to the AQ-12.

4.5 Psychometric properties

Reliability

4.5.1 Internal reliability

Cronbach's alpha (Cronbach, 1951) is the most widely accepted statistical method for calculating internal reliability (Kline, 2015). It is commonly used in social science research (Peterson, 1994; Taber, 2017) and is relevant for use with Likert-scale data (Sullivan & Artino, 2013). A review by Taber (2017) demonstrated that there are differing views on what is reported as an acceptable alpha score; however it is generally recognised that a score below 0.7 should be interpreted with caution as to the reliability of the

measure, and a score of 0.8 can be interpreted as 'good' internal reliability (Tavakol & Dennick, 2011).

In their original paper, Bryant and Smith's (2001) investigations on two samples of American undergraduate students (*n*=171, 170) revealed that the reliability estimates from Cronbach's alpha coefficients ranged from the acceptable to excellent range for internal reliability (see Table 10). The overall reliability coefficient ranged from 0.89 to 0.92 showing good to excellent internal reliability for the tool as an overall measure of aggression.

Table 10. Cronbach's Alpha scores reported by Bryant and Smith (2001)

	Cronbach's alpha				
	Physical Aggression	**Verbal Aggression**	**Anger**	**Hostility**	**Overall AQ-12**
Sample 1 (n=171)	0.79	0.83	0.76	0.75	0.89
Sample 2 (n=170)	0.8	0.8	0.76	0.7	0.92

Other research has also used undergraduate samples to assess the reliability across other countries and cultures. A Canadian study (Tremblay & Ewart, 2005) used data from Canadian undergraduate students (*n*=246), and found slightly lower Cronbach's alpha coefficients; 0.75 for Physical Aggression, 0.71 for Verbal Aggression, 0.66 for Anger, 0.68 for Hostility and 0.78 for a total Aggression. This suggests questionable reliability for the Anger and Hostility subscales individually, but acceptable internal reliability as an overall measure of aggression in a Canadian undergraduate sample. Genoud and Zimmermann (2009) assessed the reliability of a French-translated version of the AQ-12 using French undergraduate students (*n*=364). The Cronbach's alpha coefficient was 0.8 when using the

AQ-12 as an overall measure of aggression, indicating that the translated version holds similarly good internal reliability to the original.

The internal reliability of the AQ-12 has also been assessed with regards to a younger sample. A study in Singapore (Ang, 2007) using two samples of adolescent students (*n*=331, mean age=13.67; *n*=370, mean age=12.23), and demonstrated slightly lower internal reliability in a younger population. Reliability was measured using Cronbach's alpha coefficients for each subscale and overall; Physical Aggression (0.56 & 0.72), Verbal Aggression (0.73 & 0.83), Anger (0.34 & 0.55), Hostility (0.5 & 0.7), and total Aggression (0.82 & 0.84). Although the subscales demonstrate unacceptable to acceptable reliability, the overall alpha coefficient demonstrated support for the AQ-12 as a reliable measure of overall aggression. The Cronbach alpha coefficients of the individual subscales were slightly lower than other studies, which may be due to the wording of some items on the AQ-12 being less relevant to a younger population (e.g. "At times I feel I have gotten a raw deal out of life"), or a difficulty in translating meaning. The authors suggested that the lower internal consistency scores in this study may be due to age or cultural differences in an Asian sample, as compared to samples testing American or Canadian undergraduates. Other research has assessed the reliability of this measure in young samples and found similar results. A Chilean study assessed the internal consistency of the AQ-12 using a sample of 898 adolescents (age range=14-17; mean age=15.4). The authors concluded that their results supported the four-factor model as the overall reliability coefficients assessed by Cronbach's alpha demonstrated acceptable internal reliability (0.78) (Garcia-Fernandez, Martin, Herrero, Ingles & Torregrosa, 2015). A

study which assessed the AQ-12 with a forensic juvenile offender population (*n*=237) from Portugal (age range=13-18; mean age=16.6) demonstrated good internal reliability assessed by Cronbach's alpha (0.84). This shows even stronger internal reliability for the adolescent age range in a forensic population (Peccoro, Barroso, Poiares, Oliveira & Torrealday, 2016).

Although these studies demonstrated good internal reliability for the AQ-12 as an overall measure of aggression, they were assessed in regards to student or younger samples. The results from the individual subscales offer a mixed picture with some studies demonstrating that the AQ-12 may not be a reliable measure of aggression for those in early developmental ages. As noted this may be due to the questions which require abstract reasoning and evaluation of the individual's lifespan, or as a result of translation and language issues. On the other hand, it may be that at the early developmental stages the measurement of aggression requires adaptation. For example in Santisteban and Alvarado's (2009) study, they amended the BPAQ in order to be used with younger samples, calling it the 'Aggression Questionnaire for Preadolescents and Adolescents' (AQ-PA). Other child-specific measures such as the 'Children's Aggression Scale' (Halperin, McKay & Staff, 2008) uses a multiple-informant approach which requires several other perspectives, from teachers or parents for example. This approach is useful to address the difficulties in asking children to self-report on questions that necessitate abstract reasoning, which may more difficult depending on age. The variance between the results in the aforementioned studies, particularly the low reliability shown in Ang's (2007) study, demonstrates that the AQ-12 needs further testing in children and adolescent populations. The variance may mean that further tests are

required to decide if this measure is unsuitable for younger populations, and determine where the cut-off lies, for example the AQ-12 appears to hold good reliability within some teenage populations. Further testing would be useful to gain a sense of the reliability of the tool with younger populations from different counties to determine if these unacceptable reliability coefficients result from translation and language issues.

Some studies have assessed the psychometric properties of the AQ-12 in adult offender and psychiatric populations which have yielded results that are more useful for assessing the reliability of the AQ-12 in adult clinical populations. For example, Gallagher and Ashford (2016) randomly selected 246 individuals from the Arizona municipal court (66% male & 34% female assaultive misdemeanour offenders) to assess the psychometric properties of the AQ-12. Their research demonstrated the tool had an excellent overall internal reliability as assessed by Cronbach's alpha coefficient (0.89). Similarly, in a study conducted in the Netherlands (Hornsveld, Muris, Kraaimaat & Meesters, 2008), the psychometric properties of the AQ-12 were assessed in three populations, two of which have a propensity for aggression. The three groups consisted of; forensic psychiatric inpatients with a primary diagnosis of anti-social personality disorder (n=138; mean age=33.5), psychiatric patients treated at a forensic outpatient clinic as part of their sentence for violent offences (n=206, mean age=22.5), and students (n=160; mean age=17.82). The authors used statistical analysis to correct for age differences between the student population and the other two samples. The Cronbach's alpha coefficients (0.72, 0.88 & 0.81 respectively) demonstrated acceptable to good reliability with violent

offenders and students, and similar results to other studies (Bryant & Smith, 2001).

The reliability of the Spanish version of the AQ-12 (Gallardo-Pujol, Kramp, García-Forero, Pérez-Ramírez & Andrés, 2006) was assessed using a prison offender population (authors did not specify what type of offenders) (n=140), resulting in an overall Cronbach's alpha coefficient of 0.78 demonstrating acceptable internal reliability in offender populations. A Greek study (Vitoratou, Ntzoufras, Smyrnis & Stefanis, 2009) assessed the reliability of the AQ-12 with three samples; 307 randomly selected adults from the municipal registry, 1228 male conscripts of the Air Force aged 19-24, and 165 members of the Greek methadone program. Literature has highlighted the link between drug-use and aggressiveness, in that drug-use can induce aggressive behaviour (Giancola, Mezzich & Tarter 1998; Coccaro et al., 2016), and that undergoing treatment and withdrawal from drug-use can cause aggression (Sinha, 2001). Cronbach's alpha coefficients were 0.74 for the public, 0.77 for male conscripts, and 0.73 for the drug-dependent individuals, suggesting an acceptable level of internal reliability within these Greek populations, including those with substance misuse difficulties. Table 11 summarises the results of internal reliability testing that has been described above.

Table 11. Reliability measured by Cronbach's alpha

Study	Population	N	Full scale AQ-12 (Cronbach's alpha)
Bryant & Smith	Undergraduate students	171 170	0.89 0.92
Tremblay & Ewart	Undergraduate students	246	0.78
Genoud & Zimmermann	Undergraduate students	364	0.80
Garcia-Fernandez et al.	Adolescent students	898	0.78
Peccoro et al.	Adolescent students	237	0.84
Ang	Adolescent students	331 370	0.82 0.84
Gallagher & Ashford	Misdemeanor offenders	246	0.89
Hornsveld et al.	Forensic psychiatric inpatients Violent offenders Students	138 206 160	0.72 0.88 0.81
Gallardo-Pujol et al.	Prison population	140	0.78
Vitoratou et al.	Public Male conscripts Drug dependent population	307 1228 165	0.74 0.77 0.73

4.5.2 Test-retest reliability

Two studies also examined the test-retest reliability of the AQ-12 to assess stability of the AQ-12 over time (Gallardo-Pujol et al., 2006; Hornsveld et al., 2008). In order to calculate the test-retest reliability, Gallardo-Pujol et al. (2006) administered the Spanish AQ-12 to a public sample (n=1047) twice, with a four-month interval. The authors reported that there were "no missing data" (Gallardo-Pujol et al., 2006, p.2). The correlation coefficient was 0.71 which suggests good stability over time. In the study by Hornsveld et al. (2008) the retest was administered to 90 participants from

the outpatient group only, following a four-week interval. There were no dropouts recorded, and the participants were supervised by probation agencies as normal during this time. None of these participants underwent any training or aggression reduction intervention. A correlation of 0.38 was stated, which the authors reported as significant ($p<0.01$), however according to standard statistical reporting, a correlation of over 0.7 is needed to be considered significant and over 0.08 to be highly significant (Field, 2009). The reported result of 0.38 therefore suggests that the AQ-12 does not sustain stability over time.

The difference in the results from these two studies suggests that further research is required to determine the stability of AQ-12 over time, as currently this result demonstrates poor test-retest reliability. The sample used in Hornsveld et al.'s (2008) study for the test-retest calculations consisted of 90 outpatients and although the demographic information of this group was not offered, the initial intake of all outpatients comprised of 78% adolescents. This result may therefore have been as a result of the poor reliability of the AQ-12 in an adolescent population as suggested above. The authors noted that one item in particular held poorest reliability over time; "I have threatened people I know". As this question asks for an account of past events one can assume that this item should not change significantly however, it may be that participants in Hornsveld et al.'s (2008) study felt they needed to respond in a more socially desirable way at the initial test stage compared to the retest stage or vice versa, or that in the 4-week interval they had gone on to threaten someone. Despite reporting good test–retest reliability, the statistical conclusion is that the AQ-12 did not hold good stability over time in this study.

In regard to the diversity of the participants used within the norming of the AQ-12, a strength of the tool is that it has showed acceptable to good internal reliability as an overall measure of aggression across several population groups, cultures, languages, and countries (Britain, Canada, America, Greece, Spain, France, Netherlands, Portugal, Singapore, & Chile). This includes forensic psychiatric inpatients, drug-dependent individuals, prison populations, misdemeanour offenders, and violent offenders. Some studies demonstrated some unusual results with regards to the mean results, for example in Hornsveld et al.'s (2008) study, the student sample had higher mean scores than the forensic inpatient group, suggesting that students were on average more aggressive than inpatients who have demonstrated aggression. The inpatients may have been responding in a more socially desirable way due to a belief that their scores may impact on their detention or legal issues. Anti-psychotic medication may have also contributed to this, although the article does not explicitly state this, they suggest that, "the psychiatric condition of the psychotic patients had stabilized to the extent that their antisocial personality disorder became prominent, which means that they regularly exhibited aggressive behaviour on the ward" (Hornsveld et al., 2008, p.184). On the other hand, the lower scores may be due to the forensic inpatient population being 'desensitised' to aggression, and having a different threshold for what they consider aggressive behaviour. As the research in chapter 3 suggested, people seem to have different thresholds for what they consider to be aggressive behaviour. Forensic inpatients are detained as a result of their aggression or violence, and their unusual perceptions of their behaviour. For example, these individuals may score low on the item; '*Sometimes I fly off the*

handle for no good reason', because in their perception, they have a good enough reason to become aggressive, even if it would not be considered a socially acceptable reason to others. The cognitive distortions may contribute to the overall lower results in inpatient population.

Validity

In order for a psychometric tool to be valid, it must be found to be testing what it purports to measure (Howitt & Cramer, 2011). The different types of validity are discussed below.

There are a number of different statistical tests used to assess validity such as; confirmatory factor analysis (CFA), which allows for examination of absolute and relative fit to the model. Absolute fit indices determine how well the a-priori model fits, or reproduces the data, and include (but are not limited to) goodness-of-fit indices (GFI) and root mean squared error of approximation (RMSEA). Relative fit indices compare the chi-square for the hypothesized model to one from a 'null', or 'baseline' model, and includes comparative fit index (CFI) and non-normed fit index (NNFI). RMSEA values of approximately 0.05 reflect a close fit of the model in relation to its degrees of freedom, whereas a value of 0.08 or less reflects a reasonable fit (Browne & Cudeck, 1993). NNFI values range from between 0 and 1 with a cut-off of 0.95 or greater indicating a good model fit. GFI and CFI values can range between 0 and 1. To show a good fit of the model to the data, these indexes must be over 0.9 (Hu & Bentler, 1999).

4.5.3 Face validity

Face validity is considered when the items of a measure appear to correspond to what they propose to measure (Nevo, 1985), and as such is a subjective measure of validity. Kline (2015) suggested that if all aspects of a subject are being studied then the test has face validity, however cautions that face validity is not a guarantee of other forms of validity. Given that face validity is a subjective assessment, and interpretation of the items within the AQ-12 could vary from person to person dependent on a variety of factors (such as age, background, ethnicity, or experiences), it is not considered a robust measurement of validity. Nevertheless it is considered important alongside other reliable validity tests, however there are no studies assessing the face validity of the AQ-12. Given that the AQ-12 is a widely used measure of aggression, one might assume that face validity is high, and that it is acceptable to most people using the measure. Given that the questions are short, and the measure overall is direct and clear, it would appear that there is acceptable face validity.

4.5.4 Concurrent validity

Concurrent validity is demonstrated when a test correlates well with a measure that has previously been validated. In this case, as the AQ-12 measures aggression, it would be appropriate for concurrent validity to be measured against similar measures of aggression such as the BPAQ (Buss & Perry, 1992; Vigil-Colet, Lorenzo-Seva, Codorniu-Raga & Morales, 2005).

In their original paper, Bryant and Smith (2001) used three groups; American (n=307), British (n=200), and Canadian (n=306) undergraduate students to assess the validity of their shortened aggression questionnaire. They did so by comparing their data against the BPAQ that they were

proposing to replace. The first hypothesis tested the relationship between the four subscales used in both measures, using CFA. In assessing the absolute fit of data to the model, values over 0.9 are considered acceptable (Bentler & Bonett, 1980), and a value of close to 0.95 is expected of models considered to be well-fitting (Hu & Bentler, 1999). Bryant and Smith (2001) demonstrated that the AQ-12 had a good level of absolute and relative fit to the data (*GFI*=0.94, *CFI*=0.96), suggesting that the AQ-12 is a valid model for assessing aggression.

Tremblay and Ewart, (2005) replicated Bryant and Smith's investigations of the AQ-12 against the BPAQ and found similar results with an undergraduate population. CFA revealed excellent absolute and relative goodness-of-fit to the data, (*GFI*=0.93; *CFI*=0.92) as compared to the BPAQ (*GFI*=0.81; *CFI*=0.79) even when adjusted for the smaller sample sizes. However, in a French undergraduate population the absolute goodness-of-fit was reasonable (*RMSEA*=0.8), and the relative fit was good (*CFI*=0.91), although the authors contest that with such a small sample size (n=364) this is a reasonably close fit (Genoud & Zimmermann, 2009). Although lower than other studies these values are still considered a reasonable fit and therefore demonstrates validity across cultures and languages.

Ang (2007) assessed the goodness of fit of the AQ-12 against two alternate unidimensional measurement models of the AQ-12. The results demonstrated the four-factor model proposed by Bryant & Smith (2001) held superior validity across male and female samples, (*GFI*=0.96 & 0.97; *CFI*=0.96 & 0.98 respectively) compared to the first unidimensional model

(*GFI*= 0.9 & 0.91; *CFI*=0.85 & 0.85) and the second (*GFI*= 0.93 & 0.96; *CFI*=0.90 & 0.95) supporting the multi-dimensional four-factor model for assessing aggression over a one-factor model. This suggests that the AQ-12 holds good construct validity in an Asian sample as well as across genders. The gender differences in the mean scores from in this study are similar to that of other studies, which have found that males in general score higher overall than females (Nanko, 2001; Archer, 2004; Huan & Ang, 2004), particularly with instrumental aggression as measured by the Physical Aggression subscale (Buss & Perry, 1992; Hyde, 2005). Similarly, Pechorro et al.'s study (2016) supported the AQ-12 four-factor model (*CFI*=0.99; *RMSEA*=0.03) over the BPAQ (*CFI*=0.8, *RMSEA*=0.7), demonstrating superior fit with an adolescent sample.

Gallagher and Ashford (2016) compared the AQ-12 against six other models of aggression that have emerged from the original BPAQ. These included the Buss & Perry (1992) BPAQ as a one-factor model; BPAQ as a four-factor model; the Williams et al. (1996) two-factor model; the Harris (1995) BPAQ minus two items; the Diamond & Magaletta (2006) BPAQ minus three items; and the Webster et al. (2014) Brief Aggression Questionnaire (BAQ). Using CFA on a population sample of 246 randomly selected assaultive offenders, the results indicated that out of the seven variations of the BPAQ, the AQ-12 outperformed the other models and achieved excellent fit to the data (*GFI*=0.95;*CFI*=0.97; Gallagher & Ashford, 2016). This demonstrates that when tested against other measures of aggression, the AQ-12 holds superior concurrent validity even when used in an offender population. Again the study is limited by its small sample size;

however the excellent reliability and validity within this population points to the potential for clinical usefulness.

Vitoratou et al. (2009) assessed concurrent validity of the AQ-12 using CFA, against the BPAQ (Buss & Perry, 1992), and some alternate one-factor and two-factor models (Harris, 1995; Meesters, Muris, Bosma, Schouten & Beuving, 1996). CFA on all three groups (public, Air Force conscripts & drug-dependent population) revealed that the AQ-12 had superior absolute and relative fit compared to the other models (*GFI*=0.96, 0.94 & 0.93; *CFI*=0.94, 0.9 & 0.90 respectively) contributing further evidence to support the four-factor model of the AQ-12, and demonstrating excellent validity of the tool in these populations. Similarly, Hornsveld et al. (2008) assessed the concurrent validity of the AQ-12 against the original four-factor structure of the BPAQ and the two-factor structure by Williams et al. (1996). The results of CFA demonstrated excellent fit to the data in the forensic psychiatric patient group (*n*=334) (*GFI*=0.93, *CFI*=0.91), as well as the student sample (*n*=160) (*GFI*=0.93, *CFI*=0.94), confirming the validity of the four-factor model of aggression (Williams et al., 1996). These results were superior to those of the other models assessed. See Table 12 for a summary of goodness-of-fit results.

Overall these studies have assessed the AQ-12 four-factor model to hold good relative and absolute fit to the data with the exception of the RMSEA values in the Bryant and Smith's (2001) study. However, the GFI and CFI values demonstrated acceptable absolute and relative fit across all the above studies and all demonstrated that the four-factor model of the AQ-12 holds superior fit to the other models tested.

Table 12. Goodness-of-fit results for the AQ-12

	Absolute fit		**Relative fit**	
	GFI	*RMSEA*	*CFI*	*NNFI*
Bryant & Smith	0.90	0.092	0.92	0.9
(undergraduate students)	0.90	0.094	0.91	0.88
Tremblay & Ewart (undergraduate students)	0.93	0.069	0.92	
Genoud & Zimmermann (undergraduate students)		0.08	0.91	
Peccoro et al. (adolescent students)		0.03	0.99	
Ang	0.96	0.047	0.96	
(adolescent students)	0.97	0.037	0.98	
Gallagher & Ashford (offenders)	0.95	0.05	0.97	0.96
Hornsveld et al. (forensic psychiatric population)	0.93	0.08	0.91	
Vitoratou et al. (drug-dependent population)	0.93	0.067	0.91	

4.5.5 Construct validity

Construct validity determines whether or not the test is assessing the constructs that it proposes to, in this case, whether the overall AQ-12 fits the conceptual model. In assessing construct validity it is prudent where possible to assess what a test does not measure, as well as what it does (Kline, 2015). For good construct validity to be achieved, a measure should correlate positively but moderately with constructs that are expected to be related (convergent validity), and not correlate with constructs that test different constructs altogether (divergent validity) (Kline, 2015). CFA can be used to assess the construct validity of a psychological measure, and correlation analysis can be used to assess the strength of relationships between constructs.

In Bryant and Smith's (2001) original paper, a subset of 180 American undergraduate students also completed a set of criterion measures for use

in evaluating the AQ-12's construct validity. These criterion measures served as standards for assessing the convergent and discriminant validity. The physical aggression and verbal aggression subscales from the BDHI (Buss & Durkee, 1957) were used, as well as the anger-arousal subscale of the Multidimensional Anger Inventory (MAI; Siegel, 1986) for assessing anger, and the Cook–Medley Hostility Scale (HO; Cook & Medley, 1954) to assess hostility. CFA was used to assess the relationship between the four-factors of the AQ-12 and the four criterion measures. The results indicated that three of the four AQ-12 factors (Physical aggression $p<0.001$, Hostility $p<0.001$, and Anger $p<0.001$) showed better fit to the model than the BPAQ and one factor that showed the same discriminant validity as the BPAQ. The authors concluded that this demonstrated better construct validity overall than the BPAQ (Bryant & Smith, 2001). This conclusion is consistent with those of previous researchers (e.g., Archer et al., 1995; Harris, 1995; Williams et al., 1996) who have noted the inadequacy of existing factor models for the BPAQ.

Vitoratou et al. (2009) explored the validity of the AQ-12 by assessing the constructs against the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, Lipman & Covi, 1977), which is a 90-item multidimensional self-report inventory consisting of nine subscales (Anxiety, Depression, Hostility, Inter-personal sensitivity, Obsessive-compulsive, Paranoid-ideation, Phobic-anxiety, Psychoticism & Somatisation). Correlation analysis indicated that each subscale on the AQ-12 was moderately correlated to all nine subscales in the SCL-90-R. The highest correlation with the AQ-12 was found between the subscale Hostility and the SCL-90-R subscales Depression and Inter-personal sensitivity, which is congruent with other research that has shown

that the Hostility subscale encompasses depressive traits, suspiciousness, and bitterness (Vitoratou et al., 2009). The Hostility subscale of the SCL-90-R was most correlated to the AQ-12 subscales rather than the other eight SCL-90-R subscales, which also makes sense as the items in the SCL-90-R Hostility subscale reflect mostly physical aggression and anger. This would also explain why the two 'Hostility' subscales of each tool do not correlate to each other. Overall the authors concluded that the results provide evidence for strong convergent and divergent validity.

Gallardo-Pujol et al. (2006) assessed the construct validity of the AQ-12 against the Barratt Impulsivity Scale-10 (BIS-10) due to the close relationship that exists between impulsivity and aggression in the existing literature (e.g. Barratt & Slaughter, 1998). Their findings were consistent with other literature (Buss & Perry, 1992; Tremblay & Ewart, 2005), which also assessed the concurrent validity against measures of impulsivity in demonstrating that all the subscales on the AQ-12 were highly correlated to the subscales on the BIS-10 ($p<0.01$). Although the correlations with each subscale of the AQ-12 were varied (between 0.23 and 0.39), they were all significant and the total score was highly significant ($p<0.01$), suggesting good construct validity.

Diamond and Magaletta (2006) used a much larger sample of 1181 male and 453 female offenders in prison with mental health needs. The validity of the AQ-12 was assessed against the relevant scales in the Personality Assessment Inventory (PAI; Morey & Staff, 1991) using partial correlations controlling for the AQ-12 subscales, due to the close link between certain aspects of personality and aggression (Buss & Perry, 1992; Bettencourt,

Talley, Benjamin & Valentine, 2006; Gilbert & Daffern, 2011). Correlations between the AQ-12 scales and related aspects of the PAI were examined and all showed significant and positive significant results (p<0.001). The four subscales of the AQ-12, were significantly and positively related the Aggression and Antisocial subscales of the PAI, with the most significant relationship being with the Mania scale. Correlations with the Paranoia subscales from the PAI were highest with the Hostility scale on the AQ-12. The highest correlations overall were found between the Anger and Hostility scales on the AQ-12, and the Depression and Anxiety scales on the PAI, which perhaps suggests that hostility is most associated with mental health problems within this population. This resembles the results of the aforementioned study by Vitoratou et al. (2009), which found the highest correlations between Hostility (AQ-12) and Depression subscales (SCL-90-R), perhaps suggesting that those suffering with mental health difficulties may have higher levels of aggression. This is corroborated by previous research (Messer & Gross, 1994; Knox, King, Hanna, Logan & Ghaziuddin, 2000; Moscovitch, McCabe, Antony, Rocca & Swinson), and is a useful finding to inform clinical work and treatment. Overall the findings suggest that the measure has comparable validity across genders in an offender population. The results of the partial correlation suggest a fair amount of discriminative ability among the AQ-12 subscales, which is promising for a relatively short scale wherein the subscales also correlate. The magnitude of these partial correlations provides support for the convergent and discriminant validity of the AQ-12 subscales. The results established that the AQ-12 has good content validity with a widely used measure (PAI) in a federal offender setting, which has clinical applicability in that it can be

used to support screening protocols in a quick, efficient, and reliable way to identify those at risk of behaving aggressively in these settings.

Hornsveld et al. (2008) assessed construct validity of the AQ-12 against several measures to assess the convergent and divergent validity of the AQ-12. The measures were the NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 2008), the Psychopathy Checklist (PCL-R ; Hare, 1991), The trait items of the State-Trait Anger Scale (STAS; Van der Ploeg, Defares & Spielberger, 1982), the adapted version of the Picture Frustration Test (PFS-AV; Hornsveld et al., 2007), part A of the Novaco Anger Scale (NAS; Novaco, 1994), the Inventory of Interpersonal Situations (IIS; Van Dam-Baggen & Kraaimaat, 1999), and the Observation Scale for Aggressive Behavior (OSAB; Hornsveld, Nijman, Hollin, & Kraaimaat, 2007b). Correlational analysis demonstrated highly significant ($p<0.01$) positive correlations between the AQ-12 total scores and the 'Neuroticism' (NEO-FFI), 'Trait Anger' (STAS), and 'Anger' (NAS) subscales; and highly negatively correlated with the 'Agreeableness' subscale (NEO-FFI). The total AQ-12 scores were also found to be significantly correlated ($p<0.05$) to the 'Hostility' (PFS-AV), and the 'Criticism' (IIS) subscales. Furthermore, the total scores of the AQ-12 were highly significantly correlated with the total scores of the OSAB, which measured aggression on the ward with the inpatient sample. This indicates that the constructs within the AQ-12 are examining the same characteristics as other measures of aggression and thus has good validity as a measure of aggression, with these populations. It is recommended that further testing be carried out with other non-violent mental health patients, and non-violent offenders for comparisons.

4.5.6 Predictive validity

Predictive validity relates to how well a measure can predict a future outcome. Although there is little research that has examined the direct predictive ability of the AQ-12 with aggressive behaviours, the above literature has alluded to the likely predictive validly from the result of correlations with other tests. For example, the AQ-12 scores from the drug-dependent group (Vitoratou et al., 2009) were significantly higher than the other groups, suggesting that there may be increased aggressive personality traits in individuals facing problems related to substance abuse. The association between substance abuse and aggression is complex and cannot be explained with simple correlation; however this does support other research that has found early aggressive behaviour to be predictive of later substance abuse (Henry et al., 1993). Characteristics of conduct disorder have been observed to begin some years before regular drug use (Young et al., 1995). Therefore there may be some evidence suggesting that aggressive personality traits may precede substance misuse behaviour.

Some research has demonstrated that students' mean scores were higher on the AQ-12 when compared to psychiatric inpatients detained under hospital order for serious violent offenses (Hornsveld et al. 2008). This may be due to the inpatient group responding in a socially desirable way as their results may affect their treatment or detention (Nijman, Bjørkly, Palmstierna & Almvik, 2006). Alternatively it may be that the restricted nature of the inpatient environment limits opportunities or instances of aggression. Although these are speculative reasons, the AQ-12 cannot be said to hold predictive abilities with this population, and requires further testing.

4.6 Conclusion

4.6.1 Strengths

Overall the findings have supported the validity of the AQ-12 and demonstrate that although the tool is shortened and the subscales consist of three items only, the AQ-12 four-factor model preserves the conceptual content of the original model (BPAQ), and improves its statistical precision (Trembley & Ewart, 2005; Ang, 2007; Hornsveld et al., 2008; Bryant & Smith, 2009; Vitoratou et al., 2009; Gallagher & Ashford, 2016).

Cultural variability

Bryant & Smith (2009) stated that the AQ-12 is equally applicable to male and females, and holds good reliability and validity across samples from at least three English-speaking countries (Britain, America & Canada). Although the authors propose additional work to establish better construct validity of the Verbal Aggression sub-trait, other research has demonstrated that in other languages and cultures (e.g. French, Spanish, Greek, Dutch, Chilean and Singaporean) the four-factor model of the AQ-12 demonstrates good concurrent validity across a variety of population groups (adolescents, undergraduate students, police recruits, air force recruits, drug-dependent population, prison population, assaultive offenders, forensic psychiatric inpatient and forensic psychiatric outpatients). Reliability values were, though, less conclusive in younger populations (Ang, 2007). A significant strength of the AQ-12 is that it has been validated and normed in such a wide variety of populations, languages, and countries. Brief and efficient measures such as the AQ-12 are needed in challenging contexts, in which aggression assessment can be vital. The evidence-base has demonstrated

that the AQ-12 is a reliable and valid measure with far- reaching clinical utility.

Clinical utility

Another significant advantage of the AQ-12, particularly over the other aggression measures or models, is that it holds superior psychometric properties. The shorter scale and lessened item-burden holds practical benefits such as making it an easy test to administer. In challenging groups, a longer measure may be infeasible or too costly in time and resources to administer. Therefore, there is clinical applicability in that large groups can be assessed quickly and efficiently, which can be useful for screening prison populations for potential housing or treatment needs.

Further, as Kiewitz and Weaver (2007) highlighted, perhaps the AQ-12 has further applicability, not only clinically, but also in research as it is a short, highly reliable, and valid measure which allows modern researchers to utilise the simple tool with internet samples, which may help to increase sample size in further research. Research suffers from withdrawal and drop-out difficulties, particularly when measures or questionnaires are lengthy. This can also create reporting bias, such as participant fatigue, wherein responding may become less accurate. The brief but reliable nature of the AQ-12 can help alleviate some of this bias. Additionally the AQ-12 does not require formal training for administration, nor does it require an administration manual, and it is widely available; as such it is a cost-effective psychometric tool.

In addition to being brief, cost-effective, reliable, valid, and generalizable, the AQ-12 has also demonstrated superiority over other measures of aggression, with the data having better fit to other existing aggression psychometrics.

4.6.2 Limitations and recommendations

A limitation of the AQ-12 is the relative paucity of evidence to assess predictive validity. As Diamond and Magaletta, (2006) state in their article, they were unable to explore the relationship between the AQ-12 scores and actual violent behaviour in and out of prison. More research is necessary to determine whether the AQ-12 has good predictive validity, which will also increase its clinical utility. Although the AQ-12 is a psychometrically sound tool overall, it may be most effectively used as a screening tool to identify those who may require further assessment in violent populations before it can be used in a predictive capacity.

Using a psychometric measure is one way of reliably and validly testing the constructs of aggression. However, as noted with definitions of abuse in the previous chapters, the definitions of aggression can also vary, albeit to a lesser degree (Buss, 1961; Baron & Richardson, 1994, Anderson & Bushman, 2002). Therefore it is acknowledged that although the AQ-12 has good psychometric properties, it might be difficult to truly accurately measure aggression, in light of chapter 3's findings about how personal and subjective these conceptualisations can be, and how they depend on context and fore-structures. Although the research in chapter 3 explored this from a staff point of view, this gives some credence to the recommendation for further research to explore the conceptualisation of

aggression, violence, and abuse from a service-user perspective. The following chapter goes on to explore how aggression is viewed by one service-user as part of an aggression management intervention in a case study exploration.

Response bias

As with all self-report measures, a limitation is the AQ-12's vulnerability to bias such as social desirability. Respondents might give answers that make them appear more socially desirable, which as noted previously, is particularly likely to occur when assessing aggressive offending and forensic populations (Nijman et al., 2006; Hornsveld et al., 2008) who are detained due to their aggression. Although studies have shown good to excellent validity and reliability of the AQ-12 with these populations, the results in regard to the norms must be taken with caution. Perhaps to mitigate the limitations of a self-report method, the tool should be used in conjunction with other measures, such as observational reports. For that reason, in the following chapter the AQ-12 is used to assess change in service-user aggression alongside observational reports from nursing staff for more robust assessment. Some have suggested that vignette-type or scenario-based measures hold more real-world applicability (Sleed, Durrheim, Kriel, Solomon & Baxter, 2002), so perhaps this is something to consider for future developments of aggression measures.

Developmental issues

The variation in results shown with younger child or adolescent samples indicates firstly that there is no consistency in results and therefore much

more research is needed to determine the reliability of this tool in younger samples. Secondly it suggests that the AQ-12 may not be a reliable tool for younger populations to assess aggression. As noted previously, the items on the questionnaire may be worded in ways that are not accessible to younger populations; for example "I have got a raw deal out of life". Some of the items require some abstract reasoning, and understanding of a specific nuanced euphemism such as "raw deal". Some measures have been specifically adapted for younger audiences. Perhaps this measure could prove more reliable should the language be altered without changing the conceptual meaning of the item. Other aggression measures have used a multi-person approach to triangulate a more accurate assessment of a child's aggression. The 'Children's Aggression Scale' (Halperin, McKay & Staff, 2008) requires adults such as parents or teachers, along with the children themselves, to give their opinion on some set questions, and results in mean values.

Stability over time

Measures of aggression are often used in forensic psychological practice, as the client group tends to be those who have behaved in aggressive, violent, or anti-social ways. The brevity of this tool allows practitioners to screen for aggression in large samples relatively easily and quickly as evidenced above. Although some studies reported good test-retest scores, these results were not consistent across studies. This may be further evidence to suggest that the AQ-12 may not be a reliable tool to use with younger populations.

The good reliability and validity of the tool is also clinically and practically useful in prisons and forensic inpatient settings where release from

detention is often based on assessed change (e.g. reduction in aggression following an intervention). Although research has demonstrated the good psychometric properties and clinical usefulness of the AQ-12 in offending populations (Gallager & Ashford, 2006; Gallardo et al., 2006; Pechorro et al., 2016), there has been less research of this kind in forensic psychiatric inpatient populations (Hornsveld et al., 2008), although much of the offender research has included those with mental health difficulties (Diamond, Wang & Buffington-Vollum, 2005; Diamond & Magaletta, 2006). Therefore further research would be useful in determining test-retest reliability in forensic psychiatric populations to help inform clinical practice in these services.

4.6.3 Summary

A review of the research shows that the AQ-12 meets the scientific criteria of test construction, reliability, and validity in a number of populations, nationalities, and settings, and as such the research base is considered to be acceptable to draw these conclusions. As many of the validity studies concluded, the AQ-12 measures the evidence-based constructs of aggression. It has convergent validity with constructs that the literature has considered to hold strong theoretical links to aggression (e.g. impulsivity, aspects of personality, depression, and anxiety) thus validating the constructs in the AQ-12. Some of the research outlined above used offending populations to assess aggression using the AQ-12, which is concordant with the intended applied field use of the measure. The following chapter will reflect further on how clinically useful the AQ-12 is, by presenting a case study in which it was used, in order to aid assessment and evaluation of an intervention with an forensic psychiatric service-user.

As many have commented, the AQ-12 is useful clinically and in research (Bryant & Smith 2001; Gallager & Ashford, 2016); and it retains good psychometric properties despite each subscale being reduced to three items. This review supports other research that has concluded that the AQ-12 is overall a superior measure of aggression to the BPAQ.

CHAPTER 5: CASE STUDY

A CASE STUDY EXPLORING THE EFFECTS OF ANGER MANAGEMENT ON A FORENSIC PSYCHIATRIC INPATIENT IN A LOCKED REHABILITATION SETTING.

Abstract

INTRODUCTION: This study presents the case of 'Dan', a 24-year-old forensic psychiatric inpatient who has a history of violence and aggression towards frontline nursing staff in hospital.

AIMS: One aim of the study was to explore the various influences that had brought Dan to his current placement through a bespoke formulation of his violent behaviours. The other aim was to assess if a person-centred, CBT and schema informed anger-management intervention impacted on Dan's self-esteem and aggressive behaviours. In addition, Dan engaged in a 12-week problem-solving course to develop more adaptive problem-solving skills.

RESULTS: Dan's scores on the Rosenberg self-esteem inventory (RSES) increased from being in the 'low' range to 'average' range. Dan scored in the 'high' range on the Aggression Questionnaire (AQ-12) prior to the intervention, which was reduced to the 'average' range following the intervention. Dan's ability to problem-solve also changed following the group-work; suggesting a more adaptive problem coping style.

CONCLUSIONS: Although the results cannot be conclusively attributed to the intervention's Dan engaged in; there was a significant improvement on Dan's self-esteem and problem-solving abilities, and reduction in aggression. Staff observational reports were that Dan's aggressive and

hostile behaviours had diminished which was reflected in the lack of incidents logged in the ward incident reports.

5.1 Introduction

This case study presents the case of 'Dan' (name has been altered for confidentiality), a service-user in a secure forensic hospital who has been violent and aggressive towards staff during his time as an inpatient. This study will outline the assessment procedures, detail a clinical formulation of aggression and violence, summarise the intervention (individual and group), and evaluate the intervention using outcome measures such as the AQ-12 to assess any change over the intervention time.

5.1.1 Reason for referral

Dan is a 24-year-old male who was admitted to a Locked Rehabilitation unit in a forensic secure hospital in August 2013. He has a diagnosis of drug-induced psychosis and anti-social personality disorder. Prior to admission, Dan was engaging in psychology work with an assistant psychologist at a low secure hospital, thus the multi-disciplinary team believed continuing psychological therapy would be beneficial, and referred him in October 2013. Dan had presented as aggressive and highly impulsive towards staff on the ward, and he was referred to the author (Trainee Forensic Psychologist) to work on managing his anger, developing insight into his mental illness, and developing coping strategies.

Over a period of six months, a life history was taken, a neuro-psychometric measure was conducted (WAIS-IV), a risk assessment was conducted (HCR-20 v2), and other outcome measures such as the AQ-12 (Bryant & Smith, 2001) were completed. A formulation of his aggression was

constructed which will be detailed below, and an individualised treatment plan was developed, as informed by relevant theories of anger and models of therapy. Dan also attended a problem-solving group alongside the individual psychology sessions.

5.1.2 Background history of Dan

Dan was born at 38-weeks' gestation and there were no abnormalities recorded with his birth or development. His early life and upbringing was reported to have been chaotic and neglectful. It is reported that Dan was actively involved in drug-dealing with his father from a pre-teen age, and he also regularly witnessed his father being violent towards his mother. Dan experienced physical abuse himself, with his father later being convicted of domestic violence. His parents separated when he was 11-years-old and he lived with his mother, however it is reported that she would lock him out of the house between the ages of 12 and 13 due to his misbehaviour.

Dan attended mainstream school but was expelled on two occasions. He attended an educational centre for expelled pupils from age 13 but left with no formal qualifications. He truanted from school, used drugs and alcohol to excess, and was involved in physical fights with peers. From 13-14 years-old, Dan spent brief periods in care homes and foster care with intermittent periods of homelessness. Reports suggest that he was the victim of grooming and sexual abuse whilst in care.

From an early age Dan was involved criminal activity such as property damage, drug-dealing, theft, and assault. Between age 12 and 16, Dan reports using cannabis on a regular basis, abusing prescribed medications, using cocaine and ecstasy, and frequently injecting amphetamines. At age

15 he was sent to a Young Offenders Institute (YOI) for violence towards others. At age 16 he was admitted under Section 48 of the Mental Health Act to an adolescent unit where he received a diagnosis of drug-induced-psychosis. Although unusual to receive a diagnosis at an early age, at the time, Dan was experiencing auditory hallucinations, delusional ideation, and paranoia. In addition, he was exhibiting physical violence towards others. At age 18 he was admitted to a psychiatric intensive care unit (PICU) following his arrest for being in possession of a knife. Here he made a serious assault on a peer using a pool ball that he placed in a sock (index offence) in response to feeling threatened by the victim, leading to his transfer to a medium secure service. He spent a year each, at four medium secure hospitals. Whilst at one hospital, he made five assaults against staff members for which he received a two-year conditional discharge. At age 22 he was moved to a low-secure hospital and to the current locked rehabilitation unit a year later. He has never lived independently in the community as an adult.

5.1.3 Theories of aggression

A brief review of the literature was conducted on theories of aggression and anger in order to develop a robust formulation and treatment plan. From an early age Dan has been involved in a violent and criminal lifestyle; therefore, social learning, drive, and attachment theories were considered as together they offer an understanding of his violent behaviour.

Social Learning Theory

Social learning theory suggests that aggressive behaviour is learnt and maintained through the observation of other's actions and consequences

(Bandura, 1973; 1978). Dan observed a great deal of violence and aggression growing up which contributed to the belief that violence is 'normal'. The lack of consequences observed in his early years maintained this belief. It is suggested that these 'norms' can be altered with cognitive thought challenges, modelling of pro-social behaviours, and education regarding the consequences of violence.

Drive Theory

Where social learning theory considers the systemic and social context to explain how behaviour is affected, drive theory considers the physiological reasons behind aggressive behaviours. Drive theory suggests that an individual becomes aggressive as a result of frustration (arousal) at environmental factors that block goal-directed behaviour. One suggested intervention with mentally-unwell violent service-users (Jeglic, Maile & Calkins-Mercado, 2011) is to deliver psycho-education about goal-directed actions to those who have a diagnosis of schizophrenia or suffer psychosis (Hodel & West, 2003). For Dan this related to his tendency to use violence in reaction to most problems that he was faced with, as an immediate response to increased levels of arousal. His environmental triggers were being detained and being directed by staff or others in a position of authority. Some therapeutic methods of managing such aggressive behaviour from a drive theory perspective are to avoid environmental triggers or to direct the arousal to another goal.

Another method is to contain or reduce the physiological arousal that occurs in these situations through methods such as physical relaxation or mindfulness approaches. Drive theory holds the idea that high levels of

arousal can disrupt the thought processes and the ability to think rationally, leading to impulsive behaviour.

Attachment Theory

Attachment theory looks at aggression in terms of inter-personal relations. This theory suggests that early relationships that are formed in childhood shape the way a person interacts with others as an adult (Ainsworth & Bowlby, 1991), and can explain some aggressive behaviours (Finzi, Ram, Har-Evan, Schnit & Weizman, 2001). Dan's early relationships were characterised by violence, aggression, abuse, and neglect, which likely led to the development of a disorganised attachment style. In adulthood, this can lead to abusive, avoidant, and inconsistent relationships. A person with this attachment style often experiences care from others as abusive and can react to this with violence.

Anger Management

The literature on anger management is largely based on cognitive-behavioural therapies (CBT), which allows for clear and practical implications for treatment of aggressive behaviours. This model highlights the links between emotions, cognitions, and behaviour, which includes core-beliefs, distorted thought processes, and arousal. In particular this model works by addressing unhelpful patterns of thinking and negative core-beliefs that perpetuate aggression or violence, and obstruct one's ability to create and maintain healthy, non-violent relationships.

Some have suggested that best results in anger management with long-term inpatients with psychotic disorders and forensic histories, comes from a CBT approach (Garrett & Lerman, 2007). A meta-analysis of forensic inpatients receiving CBT indicated that the average CBT recipient was better off than 76% of untreated subjects in terms of anger reduction (Beck & Fernandez, 1998) and this finding has been similarly found in further meta-analyses (Del Vecchio & O'Leary, 2004) with violence reduction ratings ranging from 28% to 56% in forensic populations (Henwood, Chou & Browne, 2015). As Dan fits these criteria, a CBT based approach was considered during the treatment planning process.

Schema-approaches were highlighted as a potential therapeutic intervention by Dan's previous psychologist. Perhaps because a notable characteristic of those with personality disorders is rigid thinking patterns (Young, Klosko & Weishaar, 2003), and schema approaches compliment CBT in exploring how core-beliefs are derived from maladaptive schemas.

5.2 Assessments completed

A HCR-20 violence risk assessment (Historical Clinical Risk Management-20-version 2) was completed to assess Dan's current risk factors (see Appendix K for summary). This was completed by conducting a file review, and conducting a collaborative risk-interview with Dan where he was invited to discuss his views on what factors increase or decrease his risk of violence. The interview helped to build the therapeutic relationship, as Dan felt included in his care-planning and understood more about what 'risk' meant from a professional point of view. In understanding what professionals mean by risk, he was more able to articulate himself in relation to risk

issues. Dan stated that he valued this, perhaps because one of his core-beliefs involves a mistrust of professionals and the mental health service, so the transparency in this conversation, although difficult, was ultimately a positive experience.

Prior to commencing the intervention, Dan completed the Aggression Questionnaire-12 (AQ-12; Bryant & Smith, 2011), a Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965), and the Young Schema Questionnaire (YSQ; Young, Klosco & Weishaar, 2003). The YSQ was used to aid treatment planning and formulation. The AQ-12 was used as an outcome measure as it allows for categorisation of aggression into four subscales (Physical Aggression, Verbal Aggression, Hostility, and Anger), and can also be combined into a higher order measure of aggression. The tool has been proven in the literature to be a highly reliable (α=0.92) and valid tool (Bryant & Smith, 2001), and has shown good test-retest reliability in a population of forensic psychiatric inpatients (α=0.72) (Hornsveld, Muris, Kraaimaat & Meesters, 2008). The scores are gleaned from the sum of the responses and thus range from 12-72 for the total score, and 3-18 for each subscale. Dan scored 18, 16, 14, and 16 respectively (60 total), indicating a 'high' level of trait aggression.

The RSES was used as an outcome measure to assess Dan's self-esteem. The RSES is widely used and has high ratings in reliability and internal consistency (α=0.77) (Rosenberg, 1965), and test-retest reliability (α=0.85 over a two-week interval) (Silber & Tippett, 1965; Shorkey & Whiteman, 1978). Research has shown a high construct validity for this measure with populations of males who have had conduct disorder and been physically

victimised in adolescence (Bagley, Bolitho & Bertrand, 1997), therefore it was considered a useful and appropriate measure. Dan's score indicated a low self-esteem (13), however Dan did not believe that he suffered with low self-esteem, perhaps as a protective strategy (scores can be found in Appendix L).

In addition to the AQ-12 and RSES, behavioural observations from nursing staff were used post-intervention to corroborate the results as it is known that psychometric measures are not infallible, especially when used in isolation.

As Dan was observed to find complex information difficult to process, a WAIS-IV (Wechsler Adult Intelligence Scale- 4) and W-TAR (Wechsler Test of Adult Reading) were completed (see Appendix M for summary report). The results showed that Dan had a lower processing speed, which was clinically significant in comparison to the other indexes measured. His lower processing speed had been masked by his relatively good verbal abilities, as well as his negative attitude. It had been assumed by the ward staff that Dan's refusal to respond to requests had been due to his negative attitudes. However, this assessment suggested that when he struggled to understand information, and didn't feel comfortable in admitting this, he reacted with hostility. This information was used to adapt the treatment accordingly. The assessments highlighted that Dan's ability to process information was strengthened when visual aids were used as opposed to written information only. Therefore, in order to reduce any potential shame, and thereby hostility, exercises were conducted with visual aids or verbally, rather than written down alone. It was important for the development of self-esteem

that Dan felt able to respond to difficult questions, and felt some control and responsibility over his own care. Consequently, when asked difficult questions, Dan was given as much time as needed to respond.

The YSQ was used to determine which maladaptive schemas Dan held that contributed to his negative core-beliefs, and the resultant maladaptive coping strategies that he employed when these schemas were triggered. The YSQ indicated Dan held a maladaptive schema of *mistrust/abuse, abandonment, negativity, defectiveness/shame,* and *failure* (see Appendix L). This information informed the formulation and helped to understand how he views himself, others, and the world.

Alongside the individual sessions, Dan engaged in a problem-solving group which was evaluated by the use of the Social Problem Solving Inventory-Revised (SPSI-R; D'zurilla, & Nezu, 1990). The SPSI-R has been tested to have good internal reliability across the scales (α=0.8-0.91), adequate test-retest reliability (α=0.68-0.91) and excellent construct validity (RMSEA =0.51-0.56). The SPSI-R has also been normed with psychiatric adults (D'zurilla, & Nezu, 1990). At the start of the group, Dan scored highly on the 'Negative Problem Orientation scale' of the SPSI-R, which indicated he was more likely to doubt his own problem–solving ability, likely to view problems as a significant threat to well-being, and have low frustration-tolerance (for full outcome see Appendix L).

5.3 Formulation

A formulation was conducted using a bio-psycho-social model (see Appendix N), which considers the presenting, pre-disposing, precipitating,

and perpetuating factors in relations to the biological, environmental, cognitive, and behavioural factors.

Dan's home environment was not conducive to a healthy emotional development and he lacked the opportunity to develop appropriate coping strategies to emotional distress whilst growing up. He witnessed domestic violence and drug-use by his parents, and was the victim of violence himself whilst growing up. Social learning suggests he learned that violence is acceptable in daily life and is an effective means of getting what he wants. He learnt that drugs and alcohol are useful coping strategies in chaotic and dangerous situations. The unpredictable way in which his parents interacted with him led to a disorganised attachment style, which likely means he now experiences others as confusing and expects them to be abusive, especially people he gets close to, or those who are supposed to care for him. Dan learnt that he could only rely on himself, and as such developed a violence-based self-preservation strategy.

As part of this chaotic upbringing, Dan did not experience discipline or boundaries, and this likely perpetuated the learned response that his actions would have no consequences. When this behaviour became difficult, his mother locked him out of the house, where he became homeless and then was in foster care. It is likely that this reaction from a primary caregiver resulted in Dan feeling abandoned and led to feelings of worthlessness. In addition, this taught him that avoidance is a useful strategy when things are difficult. Typically, people who develop this type of schema have a core-belief that they must be an inherently bad person for their own family to reject them in this way. It is likely that early

relationship difficulties contributed to his difficulties in forming adaptive relationships in adulthood. Dan's experience of caregivers, even when moved into foster care, was abusive and threatening. This further reinforced his coping strategies to avoid emotions, and depend on aggression in order to protect himself.

Dan presents as mistrustful and suspicious of others. In his view of the world, rejection and hurt is inevitable. As such, Dan has a pattern of rejecting and hurting others before they can do so to him. Dan can also sabotage his own progress in an attempt to protect himself from experiencing rejection and disappointment from others. If he does not try, he cannot fail, which means that he can avoid feeling like a failure or an inherently bad person. This also allows him to hold the control of the situation so that the outcome is known and expected, and therefore not threatening or confusing. His need for control is likely symptomatic of having a total lack of control as a child where he was used and hurt by peers, family, and other caregivers.

This is a particular issue as Dan is detained as an inpatient under section 37/41 of the Mental Health Act and Ministry of Justice, and therefore has an inherent lack of control over his living circumstances. Dan reacts to feeling out of control with aggression and violence towards staff. This feeling is triggered when he is told 'no' by staff, or he feels 'trapped' or 'restricted' by his situation. Being told 'no' is experienced as abusive, or at least triggers related fears and negative schemas about himself. This is likely because he was never told 'no' in a safe way. This inherently leaves psychiatric care-givers in a difficult position as they are attempting to re-parent Dan's

experiences of safe boundary setting, as well as trying to manage their own personal and professional boundaries.

Dan has low self-esteem, which when triggered can result in violence from him. He is hypervigilant to criticism and when he is asked to do something (e.g. clean his room) he can perceive this as staff criticising him. This makes him feel worthless and perpetuates the maladaptive schema that he holds about himself being an inherently bad person. He can react with anger and aggression when these beliefs are triggered, partly because that is how he has been taught to react to criticism, and partly as a compensation strategy for the resultant negative affect. Dan reacts to perceived criticisms disproportionately aggressively which has resulted in the severe assaults of inpatient staff when they have attempted to keep boundaries. Furthermore, Dan has a lower cognitive ability and it is likely that worthlessness feelings are triggered when he struggles to understand something and therefore reacts with hostility.

Dan anticipates that others will view him negatively so he can act in ways to elicit criticism or rejection from others, in order to confirm these negative beliefs about himself. This has been observed in interactions when he has received praise from staff; Dan does not know how to hold the emotions that praise brings, nor does he know how to react to praise, perhaps because it means that he now has something to lose. As a result, he lashes out to elicit a reaction from others that is recognisable and familiar to him, even if negative, and therefore less threatening to his world-view. It also gives him a sense of control, and enables him to abuse or reject others before they have a chance to do so to him. The anticipation that others will

view him negatively is both familiar for him, and a feeling he cannot tolerate. It is hypothesised that Dan has a dichotomy within his self where he struggles to tolerate being viewed positively, so sabotages himself, but at the same time finds it intolerable to be viewed as a bad person as it reaffirms all the worst things he thinks about himself. This dichotomous presentation is seen on the ward where his reactions to similar situations can elicit multiple reactions from him, depending on which schema is triggered.

In addition to anti-social personality disorder, Dan has a co-morbid diagnosis of substance misuse. Dan began to heavily smoke cannabis from an early age, and was involved in the selling and taking of other drugs in his early teenage years, leading to a diagnosis of drug-induced-psychosis. The psychotic symptoms seemed to be treated with abstinence from substance-use and concordance with anti-psychotic medication.

5.3.1 Treatment planning

A treatment plan was devised using a CBT model to identify Dan's triggers in terms of this thoughts, emotions, and core-beliefs. A schema-focused approach was used to examine the roots of these thoughts, emotions, and beliefs from an attachment perspective (maladaptive schemas). The use of adaptive coping strategies to deal with his emotions and arousal in times of frustration were also developed and integrated into therapy to manage the more immediate stress.

As part of the treatment planning process, the therapy plan was regularly revised in order to be responsive to the service-user's needs. For example, at the assessment stage Dan required motivational work to become

engaged in the therapy process, so this work was incorporated into the treatment plan. After the WAIS-IV was completed the treatment plan was again adjusted to reflect the needs identified.

5.4 Intervention

5.4.1 Summary of intervention

Sessions with Dan started with rapport building. A therapeutic relationship was built during the assessment stage by being transparent with him about the reasons for the assessments, including the violence risk assessment. In order to model healthy adult attachment style, a consistent time and date was set for the sessions, and the therapist made clear that this space would be held regardless of whether Dan attended or not. It was important to be mindful not to create a dependent or superficial therapeutic relationship with Dan as this would be unfair and unethical.

Boundaries and goals were made collaboratively, rather than the therapist imposing boundaries on Dan. Typically, those with a diagnosis of anti-social personality disorder tend to push against boundaries (Beck, Davis & Freeman, 2015); therefore setting out joint expectations at the start was a collaborative process that aimed to reduce this (Yeandle, Fawkes, Beeby, Gordon & Challis, 2015).

5.4.2 Motivation and engagement

Initially Dan believed that he did not need to do the work because he did not think he would behave violently in the future. It was therefore proposed that the work be more focused on the angry emotions that occur and on learning skills to deal with these feelings in the moment, rather than solely on the aggressive behaviour, to which he agreed could be useful.

This collaboration assisted in keeping Dan engaged in the early stages of the anger-management intervention. The motivational work consisted of using exercises such as the motivational balance exercise (see Appendix P), and using motivational interviewing techniques during conversations. This technique was used throughout the therapeutic process and worked to good effect, in addition to challenging his negative automatic thoughts, and linking them to the maladaptive schemas. In doing so a link was created to help Dan understand the cognitive processes that perpetuate his anger and aggression.

5.4.3 Schema exploration

Dan engaged with discussions about his maladaptive schemas, alongside some psycho-educational work on how they develop, and how they have affected his behaviour and relationships. He was able to relate to all the schemas that were identified and stated that he believed each one was true of him 'to some extent'.

In exploring these schemas Dan was able to identify which automatic core-beliefs are triggered. For example, Dan was able to identify that his 'failure' schema can prevent him from trying new things. The related automatic thought was; 'I can't do it so I shouldn't embarrass myself by trying'. He preferred to have things stay the same 'on his own terms', rather than risk the potential for negative change, or the potential for him to feel worse about himself.

In addition, Dan was able to identify when these thoughts have led him to act violently or aggressively. When Dan felt pushed into something he was unsure about, such as attending a basic IT course, his failure schema was

triggered. When this happened Dan relied on his maladaptive coping strategies; he would avoid the event, and become hostile or aggressive to those who suggested it.

5.4.4 CBT anger management strategies

Following the exploration of the maladaptive schemas, cognitive-behavioural strategies were used to help Dan explore recent aggressive behaviour in relation to core-beliefs and automatic thoughts.

Cognitive-behavioural chain-analysis exercises were used to demonstrate to Dan the 'chain' of emotions, bodily-sensations, thoughts, and behaviours that can occur and affect each other. As such, Dan was able to identify which bodily sensations alerted him to the early stages of anger arousal. For example, Dan identified that being told 'no' to his request for a cigarette outside the allotted times had recently resulted in him throwing a chair. Dan identified that his automatic thought was that they were trying to shame him, which led to an increase in temperature in his face and tightness in his chest. This led to immediate feelings of anger and the impulsive reaction to throw the chair. When Dan's schema of 'defectiveness/shame' is triggered, his maladaptive coping strategy is to overcompensate (see Appendix L) which can result in aggressive behaviour. As such, Dan was able to identify some likely triggers and warning signs to his anger arousal in these situations. With each chain-analysis, Dan was able to identify unhelpful patterns, thought 'traps', and early 'warning signs' of aggression.

Dan struggled to take responsibility at times, often stating that others 'made him' act aggressively by telling him 'no'. It was hypothesised that

this was protective for Dan, because taking responsibility for his actions, meant risking confirming his core-beliefs about him being worthless. Thought-challenging exercises were useful at this point to help Dan find 'evidence' for and against the negative core-beliefs. In doing this Dan was able to 'prove' to himself that his core-beliefs about him being bad or worthless, or others being abusive or untrustworthy, could be disproven. By coming to these conclusions himself, based on his own 'investigations', he was more able to believe the alternate thoughts. This may have helped Dan's motivation for change move from based mostly on external factors (such as staff telling him to), to internal factors (believing he could).

One cognitive-behavioural exercise that was used over several sessions was a Likert scoring exercise. Dan was asked to choose five scenarios in the last month that had made him angry or aggressive. In each of these scenarios, he had an issue with a staff member, often because he felt they were criticising him. Dan was then asked to rate each scenario on a scale of 1-5 on how angry it made him feel, and then on how aggressive he thought he had been. It became clear that Dan's views on aggression were distorted; he believed only severe violence counted as aggression, and that anything less was not aggression at all. Of note was the language Dan used when talking about how angry each scenario made him feel. It seemed that he knew that he was ultimately responsible for his actions, however his mistrust and dislike of authority clouded his judgement. The narrative he used indicated that he did actually know that his reactions to these situations were seen as disproportionately aggressive by others; but believed they were justifiable by his social norms. Some role-play exercises were used to explore Dan's reactions (in relation to which schemas were

activated) in scenarios with people who were and were not in positions of authority. In some instances Dan was able to acknowledge that different situations warranted different responses, however his mistrust of professionals and his expectation of being abused by them was entrenched to the point where he struggled to internalise the nuances of the different situations.

5.4.5 Threat and control

During the chain-analysis exercises, Dan was able to identify aspects of physiological arousal, which contributed to the development of his own early warning signs for anger. One regular trigger was when Dan felt out of control. In the past, a lack of control has led to him being used or abused. As a result, in the community Dan learned to be the one in control, which he did by being the most physically violent. As an inpatient, the same threats are not present, however if Dan is triggered to feel this way, he can react with similar intensity.

Dan was encouraged to explore this dichotomy; between the 'alpha male' identity which was functional for self-preservation in the past, and a new identity, where he might be able to care and protect himself in non-violent ways. Since being in hospital, this dichotomy has been difficult to assimilate in regard to his identity. Acts of care or praise from others have been met with hostility. Even self-care was experienced as alien and abusive for Dan and resulted in him reacting with hostility to others. This was likely contributed to by Dan's low self-esteem where he couldn't believe praise from others to be genuine. It was difficult for Dan to relinquish a strategy

that had been so protective in his life, without which he perceived himself to be very vulnerable.

This became a 'live' issue in one session where Dan reacted angrily to praise. This gave the opportunity to work in real time with the angry feelings. Dan was asked to identify what he was thinking and feeling, and try to link this to his known schemas. With support, Dan was able to do this, and in the process acknowledged that he may have used the 'over-compensation' strategy in this instance. It was reflected that perhaps Dan was attempting to push away the therapist before the therapist could reject him. This was discussed openly in sessions and linked to his schemas and schema reactions, rather than criticising him for having this reaction. Dan was assured that his treatment and care would not be negatively affected and the therapist continued to give him the positive praise despite his attempts to elicit a negative response. Over time, Dan was able to hear a positive statement about himself without reacting with hostility. Perhaps the constant positive reinforcement, and commitment to co-collaboration, demonstrated that he could still feel in control, and gain praise. It also seemed to have a positive effect on his self-esteem.

5.4.6 Developing coping skills

The coping strategies and anger management techniques that Dan had developed over the course of the therapy were successful to some degree. His offence-paralleling behaviours such as physical aggression to property had diminished, however his self-harming behaviours increased slightly at one stage when he learnt about the death of a friend. At that stage the coping strategies that were developed together were focused on Dan being

able to use ‘safe’ strategies such as holding an ice-cube rather than cutting himself.

Dan’s core-belief about being a ‘bad-person’ remained; however he was also able to talk about being a ‘good uncle’, a ‘good football player’, and ‘good friend’. Adding to this, he was encouraged to develop self-compassion strategies. Dan struggled with this, perhaps because acting aggressively has been adaptive and so the ‘compassionate’ thing to do in the past. With repeated practice in sessions, Dan was somewhat able to start attuning his orientation more positively and not only identify with negative cues in his environment.

Dan’s social construction of masculinity was that ‘men are tough’ and ‘men fight’. Having or expressing emotions was an indication of weakness. Therefore, encouraging Dan to develop self-compassion may have been high-risk strategy, however the judgement was made (with clinical supervision) that it may be beneficial to build his self-esteem and confidence, and would complement the work he had been doing with challenging the ‘defectiveness and shame’ schema. This resulted in the development of some basic exercises to practice self-care, in attempts to break the ‘anger cycle’. He reported that some of the self-soothing exercises worked well, as did the strategies which involved the diffusing of physical ‘drive’ into pro-social pursuits, e.g. football/ boxing.

As well as considering the emotional strategies to prevent aggression, Dan was also encouraged to explore strategies that focused on altering negative thinking patterns, for example, managing his ‘hot’ (angry) thoughts by balancing them out with ‘cool’ (rational) thoughts. He made use of the

'traffic light system' to slow down his impulsive thinking, and to rehearse his pre-identified calming thoughts to 'cool down' angry thoughts. He tried to think about the consequences before he acted, and to talk to a trusted staff member when he felt distressed or wanted to harm himself. He was supported to challenging assumptions about others and about his own negative thoughts.

In addition, some distraction techniques were developed to calm his physiological response such as going for a walk, using the gym, or listening to music. Other anger management techniques included mindfulness practices and self-soothing exercises. The more concrete techniques worked better for Dan, perhaps due to his cognitive functioning, where abstract ideas that occur in some mindfulness practices, were too intangible for him.

5.4.7 Problem-solving group

Alongside this intervention Dan attended a 12-week problem-solving group, adapted from a social problem-solving group designed for personality disorder offenders (McMurran, Fyff, McCarthy, Duggan & Latham, 2001). The group aimed to "improve anticipation of the consequences of actions by correcting dysfunctional thinking styles and tackling anti-social attitudes" (McMurran et al., 2001, p.276).

The group was centred on learning seven steps that were posed as questions:

1) Orientation: cueing in to bad feelings as a trigger for the problem-solving process and encouraging the belief that problems can be solved (i.e. what is the bad feeling?).

(2) Problem definition: before a problem can be solved, it must be accurately defined, without relying on inferences or suppositions (i.e. what is the real problem?).

(3) Goal setting: setting goals as a basis for action planning (i.e. what do I want to achieve?).

(4) Generation of alternatives: creative identification of possible ways that goals might be achieved (i.e. what are my options?).

(5) Decision making: examination of the advantages and disadvantages of each potential solution to assist with the choice of action (i.e. what is my plan?).

(6) Action: using one or more of the viable options in a logically arranged means–end action plan.

(7) Evaluation: after the action plan has been implemented, the outcomes are evaluated (i.e. how did I do?).

Dan's engagement in the group was good overall, with him engaging in group discussions, particularly when generating alternative solutions. Dan completed the SPSI-R at the start and end of the group. Dan learnt how to increase his consequential thinking and to regulate impulsive thoughts and feelings. The strategies learned in the group work complemented the strategies learned in the individual work. It also offered a consistency in message about slowing down impulsive decision-making. Dan benefitted from the group structure; perhaps because it was further 'proof' for him that others struggle with similar difficulties, meaning he isn't inherently 'bad'.

5.4.8 Systemic Approaches

Alongside this, some consultancy took place with the staff team. A 'case discussion' meeting was held and a formulation was developed with the staff team to help them think about Dan from a different perspective. The team stated this was a useful exercise for them, as they had not considered Dan's aggressive reactions as being functional for him to some degree, rather had felt that he was being antagonising 'on purpose' or for 'no reason'. Instead they had felt frustrated with him and felt pulled to set even firmer boundaries. This work helped Dan's care team to develop different ways of working with him that were less confrontational and were less likely to trigger his maladaptive schemas. For example, staff felt exasperated by Dan's anti-social attitude when he was asked to adhere to rules such as cigarette breaks. He would often respond by being hostile or verbally aggressive. Discussions were had about using some aspects of motivational interviewing with him and giving him more responsibility. Instead of telling him outright what he cannot do, and threatening him with loss of privileges, it would be more conducive to encourage Dan to think about why his requests cannot be facilitated, to negotiate a solution with him, or to give clear reasons for the decision so that he does not perceive it as personal criticism. Negative punishment has contributed to Dan's anti-social reactions; therefore attempting to use behavioural conditioning based on punishment, i.e. telling him that he would lose privileges, was antagonistic to Dan, as he learnt to respond to 'threats' with violence. From an attachment perspective, Dan likely perceived the use of punishment as another form of rejection and as such triggered the negative core-belief about him being 'bad' or 'worthless'. When this core-belief is triggered, Dan

uses an overcompensation strategy; and projects that 'bad person' feeling onto others, resulting in hostility, and likely further boundary pushing.

5.5 Results

Dan repeated the RSES and AQ-12 at the end of the individual therapy. His scores suggest a decrease in overall aggression; moving from the high range to the average range, with a decrease in each subscale (see Table 13). As well as the scores indicating a shift in aggression, Dan's own vocabulary changed. His narrative shifted from talking about himself in the present tense as a violent male, to referring to his past-self who used to be violent. Sometimes he did not endorse the view of himself as a 'violent person', but acknowledged that he 'was' or 'can be' violent at times. This indicated an understanding and insight into his ability to manage anger, where he can recognise at times that he has the potential to be violent but no longer fundamentally sees himself as someone who 'needs to be violent'.

Table 13. Dan's Aggression Questionnaire-12 scores

	Physical aggression	**Verbal aggression**	**Anger**	**Hostility**	**Total**
Pre-intervention	18	16	14	16	60
Post-intervention	14	14	13	14	55

Scores: Very Low=1-29; Low=30-39; Low Average=40-44; Average= 45-55; High Average=56-59; High=60-69; Very High=70+

The scores of the RSES increased from 13 to 18 indicating Dan's self-esteem shifted from the 'low' range to the 'normal' range (see Appendix L). Dan spoke of feeling more determined that he would be able to achieve a non-violent lifestyle, which is perhaps a reflection of his increased self-

esteem. This shift in his confidence was important for him as he started therapy by seeing himself as fundamentally worthless, but by the end his increased self-esteem and confidence in his own abilities allowed him to believe that he could change, even if those negative core-beliefs were still present at times. At the start of the therapy Dan was resistant to try anything, out of fear that he might fail at it, however towards the end he was prepared to try some new ways of thinking and new coping strategies to manage anger and arousal.

Dan's scores on the SPSI-R following the completion of the problem-solving group demonstrated a move away from an 'Avoidant' and 'Negative' problem-solving style. Although Dan's scores for the 'Impulsive problem-solving style' scale hadn't altered, the other scores had moved to a more 'average' position, indicating a more balanced problem-solving style overall (see Appendix L for results).

Nursing staff were asked if there had been any acts of violence or aggression from Dan recorded on the incident logs, of which there were none in the preceding 30 days. As discussed in chapter 4, actuarial measures can be useful in determining differences over time in a standardised way, but can also be open to self-report bias. However as previously demonstrated (in chapter 4) the AQ-12 holds good–to-excellent psychometric properties, and further, it has been validated for use with forensic psychiatric service-users. In this case, the AQ-12 was a reliable, valid, and user-friendly measure. An additional advantage was the briefness of the tool, particularly as Dan struggled with written tasks. To ameliorate for self-report bias, and increase robustness of results, it can be useful to

gather observational data too. Frontline staff were asked to comment on their observations of Dan's behaviour.

Staff observed that in general Dan seemed to be 'more agreeable' when asked to comply with the ward rules, and was developing positive relationships with some staff members. This demonstrated that Dan had managed to develop some level of impulse control in reaction to anger. Staff also reported that he was verbally expressing himself slightly better and showing some insight into his aggressive reactions.

Although staff observed a reduction in anti-social attitude, there were reports that with certain staff members Dan was sometimes argumentative, but not verbally abusive. In consulting with the staff team at the end of the therapy with Dan, it was suggested that it was perhaps unrealistic to believe he would get on with all staff, and to expect him to do so might be to set him up to fail. Instead it was suggested that as part of his individualised care plan, when difficult news or information had to be given to Dan, staff consider those with good relationships to do this. It was also recommended that people recognise and praise Dan when he has managed his anger well, or used adaptive coping strategies.

5.6 Discussion

This case study followed the assessment, formulation, treatment planning, intervention, and evaluation of working with Dan. The intervention was primarily aimed at reducing aggression and violence. In addition, this intervention aimed to increase self-esteem and increase positive problem-solving abilities. The results indicate these aims were achieved to some degree.

Assessing and reducing aggression is a core part of a psychologist's role in forensic inpatient settings. In this case, Dan's violence had been life-long, and had resulted in his detention to medium security hospital in his early adulthood. Dan stated his violent reactions at the time were in response to feeling treating unfairly. From a psychiatric professional's perspective, this may be constructed as an artefact of paranoid ideation. On the other hand, it may be a personality trait from someone who has a history of difficulties with authority figures, and difficulties with being told what to do. This highlights one of the inherent complexities of providing mental health care within the restrictions of a forensic and legal framework which can sometimes feel contradictory.

For example, Dan's life experiences taught him that receiving care is akin to being hurt or abused. In psychiatric services, where care was offered by professionals 24/7, it is hypothesised that Dan initially experienced this as abusive; and when this occurs he reacts abusively to others. This relates to the findings from the research (chapter 3), which suggested staff in psychiatric services may also equate effective care-giving, with tolerating some level of abuse. In order to do this, staff constructed service-users as having mental illness, meaning they were not in control of their violence, or at least did not intend harm. However in Dan's case, the staff here felt Dan's violence was as an artefact of personality disorder, and therefore he was intending harm, which in turn makes it less tolerable for staff, and harder for them to provide care. As such, consultation and reflective sessions with Dan's team was essential to offer insight into Dan's internal worlds, and proved effective in altering staff's perspectives about Dan's use of violence. This is not to say that violence was more tolerated; but that in

having an increased knowledge about Dan, they were able to work differently with him.

It is hypothesised that Dan's construction of violence and mental illness was also difficult for him to think about. Perhaps from his perspective, he has been moved to different psychiatric hospitals in response to his violence against staff. This again links to the research in terms of the 'mad versus bad' dynamic that was important in constructing abuse from the staff perspective. This dynamic may influence service-user's perceptions about why they are detained in psychiatric hospitals. As such, if they are no longer 'mad', i.e. not experiencing command hallucinations, does this then mean they are 'bad'? This was certainly one of the negative schemas Dan held, about being worthless which perpetuated his violence. This may also offer some explanation as to why compassion-focussed and self-esteem related interventions were helpful in ameliorating the bad or worthless narrative Dan held about himself.

Of note was Dan's own conceptualisation of abuse. In his perception, only physical violence was considered aggressive, and anything 'less' was not considered aggression at all. This relates to the concepts highlighted in the research (chapter 3), that suggest the conceptualisation of abuse is subjective and context dependent. One recommendation from the research was to conduct similar studies to examine the service-user perspective as well. This case study gives some insight, if only from one person, about why the conceptualisation of abuse from a service-user perspective may be important; and how it might be different again from a staff perspective. This also gives some indication into the importance of this for future

research, as there are clear differences that may not be realised day-to-day in clinical services, but if investigated, can aid in understanding why violence is so prevalent in these services. In realising Dan's conceptualisation of aggression in this study, staff were able to alter their clinical and therapeutic work with Dan. The development of a shared understanding helped both Dan and staff re-examine some of their pre-conceptions regarding violence and aggression.

In conducting this case study, the therapist reflected on the aggression and abuse that was experienced in session, and compared this to the findings of the research (chapter 3). When Dan became hostile in the session, the therapist questioned her own interpretation of abuse, and made the decision to tolerate this behaviour. This decision was based on an understanding of what the function of Dan's behaviour was. This is similar to the process that staff identified as having to understand the 'intention' behind the act, in order to assess if it was abusive or not. The staff in the research felt the intent was linked to whether the service-user was 'mad or bad'. Unlike the research however, the therapist in this study conceptualised abuse based on the actual function of the behaviour. This is again more evidence to support the need to explore the lived-experience and conceptualisation of abuse from a service-user perspective.

5.6.1 Limitations

Although this case study demonstrated a change in the desired direction, i.e. a reduction in aggression, and an increase in self-esteem and positive coping styles, there were several practical and theoretical issues to overcome. One such issue was working with a staff team who had strong

negative feelings towards Dan because of his assaultive behaviour towards them. This made for challenging consultations and formulation sessions. For example, when it was suggested that staff use a positive reinforcement approach without using punishment, some struggled to operationalise it, as it was at odds to how they felt about him. The implication of this was an inconsistent care approach, where only some the staff endorsed and used the suggested method. By comparison, the staff that did not use the method seemed to be more punitive from Dan's point of view, which created tension and hostility between Dan and these nurses. This is one difficulty in working with staff that experience violence and aggression from the people they are trying to care for (Bromley & Emmerson, 1995), and who have to manage the complexity of healthcare and violence management. This is the reason consultation sessions were important to help overcome this barrier. This also parallels one of the findings from the literature review (chapter 2) which discovered that wards that adhere only in part to the recommended techniques, actually saw an increase in aggression and violence, as compared to wards where most staff were using the same recommended techniques.

Another limitation to evaluating therapeutic change in forensic inpatient settings is that the environment is artificial. Therefore changes to aggression and behaviour on a ward may not necessarily be indicative of how able a service-user is to modify violent behaviour in the 'real world'. As the previous chapter demonstrated, those in inpatient services may respond on self-report measures in a socially desirable way. However, Dan was able to test-out his coping strategies in a graded manner, with the use of gradually increasing access to independent time outside the hospital.

Dan was able to demonstrate his ability to manage aggression, and there were no reported instances of aggression or violence when accessing the community.

Evaluating therapeutic change can be difficult to do accurately, however in this case, the outcome measures used were chosen for their sound psychometric properties; and because they have been commonly used with psychiatric populations in research and clinical practice. Assessing change over a short amount of time can be difficult, and some have suggested that the use of several types of data can offer a more robust and accurate picture of change (Van de Mortel, 2008). This is particularly true when evaluating change using self-report measures (Van de Mortel, 2008). Social desirability may impact the way in which Dan responded to the psychometric measures. This is an important consideration for clinical work, as service-users may artificially respond on the psychometrics, because change (aggression reduction) in forensic psychiatric settings is associated with increased access to the community, and eventually plays a role in the decision to discharge a service-user from hospital. To address this, observational reports from nursing and support staff were sought, which in this case substantiated the findings from the outcome measure data and corroborated Dan's reduction in aggression and hostility.

Due to the time limitations of this case study, the author was not able to conduct follow-up analysis. It is recommended that those continuing to work with Dan reassess using the RSES, SPSI-R and AQ-12 after a period of time to determine if the positive effects observed are sustained over time. Gallardo et al. (2006) suggested the AQ-12 holds good test-retest reliability

for as long as four months, therefore it is recommended that follow-up tests are carried out over a six and twelve week period.

Upon reflection of this therapeutic case, there are some learning points for future work. Of the most salient difficulties was Dan's mistrust and dislike of those in authority positions, which previously led to assaultive behaviour against staff. The therapist relationship inherently puts them in a position of authority. This meant that Dan's typical victim type was present throughout the duration of therapy. However, by adopting a collaborative and transparent approach with Dan, the therapist attempted to flatten this power-dynamic as much as possible, acknowledging that this is only possible to some degree given the forensic environment.

A final limitation of this work is that the replicability of the study is difficult, however it is noted that case studies by nature do not necessarily seek to be replicable, but rather to give a practical case example (Willis, 2014). In addition, a lack of replicability does not indicate a lack of usefulness or generalisability (Eysenck, 2013; George & Bennett, 2005; Flyvbjerg, 2006). In general, evaluations of therapies that have impacted positive change are useful to contribute to the overall evidence-base for a therapeutic process or model. In this case, the intervention was not a set or manualised program. Due to the existing methods of psychological therapy in the hospital, manualised treatments were rarely used, and the team favoured an idiographic needs-led approach. This has significant advantages in that the treatment is tailor-made to the individual which some have indicated can result in better outcomes (Ward & Stewart, 2003), such as with use of the Risk-Needs-Responsivity principle (Bonta & Andrews, 2007) in

treatment planning for forensic service-users. This approach allows for the therapist to be responsive to the needs of the service-user.

The disadvantage is that results are difficult to replicate, and difficult to attribute to the therapy alone. However, this could also be said for any therapeutic intervention because they do not occur in a vacuum, and there may be many factors that contribute towards change; such as the physical environment, ward milieu, and complementary therapies such as occupational or medicinal (Duxbury & Whittington, 2005). More recently there has been a move towards using several interventions simultaneously to reduce aggression in psychiatric inpatient services such as with the 'Safewards' principals (Bowers, 2014), which looks to improve ward cultures and the physical environment, as well as using multi-disciplinary interventions (Bowers, 2014).

5.6.2 Recommendations

It was recommended that Dan have access to longer-term therapy where in-depth schema therapy can be used to help him to continue developing an understanding about how his past experiences have shaped his view of the world, himself, and others. Following this intervention, Dan demonstrated an increase in aggression-management against others, however future work was recommended because Dan can still feel intense anger that leads to self-harm.

Dan seemed to benefit from having a consistent opportunity to discuss his thoughts and feelings. Therefore, it is suggested that there be a continued space for him to talk perhaps with his primary nurse, to be able to vent

feelings of frustration and anger in a safe and appropriate way, without fear of judgement.

It is recommended that staff encourage the continued use of coping strategies in day-to-day interactions. Whilst Dan has begun to develop some coping strategies for difficult emotions, he requires support to apply these skills; particularly at times of heightened emotional arousal where he finds it more difficult to recall his coping strategies.

In the future some aspect of reparative therapy may useful, in an attempt to re-establish the constructs of his social world, to view those in authority positions in less threatening ways. This may take the form of more systemic therapy such as open dialogue (Seikkula, 2008), which involves removing hierarchy, and staff collaborating with the service-user to develop a shared understanding of difficulties and responses. Although relatively new to the UK, open dialogue is starting to develop an evidence-base for use in mental health settings within the NHS (Razzaque, & Wood, 2015). However, practical and legal barriers within forensic hospitals make a true flattened-hierarchy difficult to achieve.

Perhaps further research would benefit from assessing the differences in outcomes from a manualised anger-management therapy against an individual needs-led therapy. However as previously noted, it is difficult to empirically compare individual case studies with large group studies. Further research would benefit from a longitudinal approach to determine if positive changes observed are sustained over time. Finally, future research may benefit from evaluating the service-user perspective as well as the staff's perspective when dealing with violent behaviours. This may help in

developing new clinical approaches to reduce violence, by developing a shared understanding of how abuse is conceptualised and pre-conceived by both.

CHAPTER 6: DISCUSSION

6.1 Discussion

Violence, aggression, and abuse have long been problems facing psychiatric nurses and nursing staff in the UK. Research has shown that psychiatric and forensic nursing staff are affected disproportionately more than other nursing professions (Bowers et al., 2011). Some literature has attempted to explain this as a consequence of psychiatric services caring for service-users who cannot safely be managed in mainstream services, which is even more relevant for those working in forensic psychiatric services (Coid et al., 2001). In recent years, the data have shown that this issue is worsening; frontline staff are experiencing and reporting more violence and abuse from the service-users they are employed to care for (Anderson & West, 2011; NHS England, 2016). The lack of regular and experienced frontline staff has resulted in less continuity and quality of care, which decreases the likelihood of staff being able to efficiently and effectively de-escalate challenging behaviours to prevent violence and abuse.

6.1.1 Key findings

This thesis has explored this topic from four perspectives. First, a systematic review examined the literature on evaluated training programmes for nurses to manage or prevent violence and aggression from service-users, to determine what training is currently used, how effective it is, and understand what might be helpful for future training to consider. This review demonstrated the need for increased emphasis on evaluating and publishing training offered in hospitals to build an evidence base. From the extant literature that evaluated training, there was some evidence to suggest that training aimed at increasing nurse skills (verbal de-escalation); knowledge (recognising early signs of violence); and confidence

(feeling more equipped to manage challenging behaviours) can have some effect in overall lowering instances of violence, aggression, and abuse. Although must be noted that due to the methodological flaws of the review and the lack of a robust evidence base, this represents a starting point for developing an understanding the benefits of training for nurses. Future research would benefit from inquiry into the effect on other professional groups, such as nursing support workers. Other potential directions for future literature might be; gaining an understanding of the importance and effects of the 'critical-mass' theory; examining whether or not specific professions, for example, forensic inpatient psychiatric nurses, have specific needs as compared to general psychiatric nurses; evaluating how long the positive effects of training can be sustained; and discovering how regularly 'top-up' training is required for the retention of knowledge, skills, and confidence to manage aggressive and challenging service-users.

Following this, chapter three of this thesis examined the perspective of nurses in forensic psychiatric inpatient settings, and compared them to the general public. This was explored using a mixed methods approach to achieve both a subjective account of the victims' lived experiences of abuse at work from service-users, and to ascertain how this differs from a public population's perception of abuse. Interviews with nursing staff offered an insight into how abuse is conceptualised: through a bi-directional process whereby individual factors interact with systemic factors to develop their understanding of how an event comes to be understood as abusive. This showed that staff in this hospital felt abandoned by the lack of support systemically: from ward-based colleagues, managers, and the organisation as a whole. The feedback they received led them to believe that their

abusive experiences were not taken seriously, despite the organisation endorsing a 'zero-tolerance' approach in theory. Over time, this informed their understanding of what constituted an abusive event. This feedback loop was explained by staff as precipitating a desensitisation process, wherein they felt obliged to distance themselves emotionally in order to continue to work in an abusive environment. They became habituated to receiving abuse from service-users, and thus reported the events less over time, believing that the systemic response would continue to be dismissive. Following dissemination of this research to the teams involved, the hospital removed the 'zero-tolerance' approach and has encourages staff to take action where they see fit against perpetrators of abuse. A new electronic incident reporting system has been implemented, which allows staff to report any event they deem worthy, thus removing the opportunity for judgemental or dismissive reactions.

The latter part of this research was a quantitative exploration of how frontline staff working in this setting (low secure forensic psychiatric inpatient service) differ in their tolerance of abuse compared to a public sample. The results supported previous research that demonstrated that those who work in these settings – where abuse, violence and aggression are disproportionately higher than other services – have a significantly higher perception for what constitutes abuse as compared to a public sample. It found that those who had worked in these settings the longest had the highest thresholds for abuse. This finding is important to consider, particularly when thinking clinically about retaining staff in a climate in which experienced and specialist nursing staff are increasingly rarer and thus a focus on retention, and prevention of burnout, is crucial. This finding

supports previous research that has demonstrated the association between staff abuse and reduced job satisfaction, leading to departure from the nursing profession (Rippon, 2000; Wistanley et al., 2002; Lipscomb & Ghaziri, 2013).

Thirdly the thesis critically examined one of the main tools used for assessing aggression in mental health and forensic services. In chapter four, the psychometric properties of the Aggression Questionnaire-12 (AQ-12; Bryant & Smith, 2001) are discussed and evaluated. The review showed that overall the AQ-12 is a valid and reliable measure of aggression in adults, comparable if not superior to other similar measure of aggression. However the tool was not found to demonstrate reliable results for younger populations, thus suggesting that its clinical utility lies primarily with adult populations. The results of tests to assess the stability of the tool demonstrated inconsistencies and, at this stage, it cannot be said to hold good test-retest reliability. This warrants further exploration, particularly in forensic inpatient populations in which evaluation of treatments requires pre and post-testing to be reliable in order to assess change over time. The four-factor structure of the tool was upheld, despite the significantly reduced items per structure. Overall, the AQ-12 was found to be a psychometrically sound tool in a number of adult populations and even retained reliability when translated into different languages. It has been proposed as a clinically useful tool for staff to assess potential aggression in service-users, which could inform treatment-planning. It could even help in establishing the most suitable environment for a service-user, for example whether an acute ward or low secure rehabilitation would appropriate. Careful consideration of placements prevents service-users being admitted

to wards in which the nurses are not equipped to manage them and thus violence, aggression or abuse occurs.

The final perspective presented in this thesis is that of the perpetrator of abuse. A single case study methodology was used to explore the opposite side to the issue of service-users who are abusive to their caregivers in psychiatric inpatient services. This chapter demonstrated that with a psychological formulation of the individual, and a subsequent individually-tailored psychological treatment, the violent and aggressive behaviour of the individual was reduced. This offered a useful clinical insight as it demonstrated that training nurses to manage aggression alone, may be insufficient; rather, a focus on how to change the behaviour of the perpetrators so as to prevent the abuse from happening in the first place should occur in parallel. Inpatient forensic services are primarily concerned with reducing risk of harm to self or others, and therefore perhaps training should be offered to nursing and other frontline staff on risk formulation, which can inform how they work with violent and abusive service-users prevent abuse where possible. This case study indicated that the key to reducing this service-users' aggression, was working systemically with the team to understand the function of their behaviour. This had the effect of reducing the level of conflict between the team and the service-user overall. This finding is congruent with recent nursing literature, which advocates for nurses learning psychological methods of de-escalation and understanding psychological formulation, particularly in specialist areas like forensic services (Valentine, 2013). The Forensic Care Quality Commission proposes this as useful training targets to understand the service-user's perspective,

to communicate effectively with service-users, and to understand systemic influences on their behaviour (Holder & Souza, 2016).

6.1.2 Considerations and limitations

This thesis systematically reviewed the literature evaluating training courses offered to frontline staff to prevent or manage abuse. The review demonstrated a relative paucity of evaluated studies, and a significant variation in what was offered in terms of training packages. The results of chapter two showed that some of the training directed at altering staff attitudes for example (see section 2.4.4), were ineffective. However, other training programmes resulted in reduced instances of violence, and increased staff skill and confidence to manage aggression and abuse (see section 2.4.1 and 2.4.2). One of the themes from the research study echoed this, in that all staff felt their training was inadequate (see section 3.3.6.3). They felt the existing training failed to include important topics, such as how to manage emotional or psychological abuse, and was not robust enough training to support staff in the physical management of abuse. Another prevalent theme was that staff made sense of an abusive event by determining whether or not the action was driven by mental illness, and therefore, whether or not it was 'intentional' (see section 3.3.2.2). This misconception, as explored in the case study, emerged during case discussion sessions with the care team. Staff also based their judgement of whether an event was abusive or not, on the mental state of the service-user in the case study (see section 5.4.8). The staff reported benefiting from psychological input via the case discussion, which increased their knowledge about the function of the aggression, and skills in managing the service-user's aggression. As such, they were able to

effectively employ these skills, and later reported having built better therapeutic relationships. This aided in de-escalating aggressive behaviour before it escalated to violence, and reducing instances of aggression overall. It served to demonstrate the effect identified in the literature review; increased knowledge about the function of aggression and violence, and improved skills in managing behaviours, left staff feeling better equipped to deal with the challenging behaviours to prevent aggression and violence. Thus, further research would be valuable to build an evidence-base for what type of training helps to reduce violence, and how to implement this in clinical settings.

In the qualitative element of research study, staff talked about how their identity as nursing professionals was difficult to assimilate with the reality of forensic, legal, and secure service requirements, which they felt implicitly, and sometimes explicitly, told them they should expect and tolerate to experience abuse, violence or aggression at work. This is corroborated by other research (Gillespie & Flowers, 2009); however, of particular concern to this group was the discord they felt about the conflict of managing risk using force, with their nursing identity (Slemon et al., 2017) which was primarily to provide care for mental and physical health issues (see section 3.3.5.1). Slemon et al. (2017) discussed how this dissonance is an increasing issue for psychiatric nursing professionals as a group, and highlighted professional concern with the current risk reduction strategies, such as close observation and seclusion, which are taught as safe practice. It demonstrates the need to shift perspectives on safety and risk in nursing care towards harm reduction strategies that are more in line with health care values and that depart from the culture of legitimising harm to staff

and the use of harmful practices to manage this (Slemon et al., 2017). Despite the topic of aggression and abuse posing a challenge for researchers due to the aforementioned reasons, researchers have developed ways to assess these constructs. Chapter four examined the psychometric properties of an aggression measure (AQ-12) that has been cited as a useful and commonly used tool in clinical settings (Peterson, 1994; Taber, 2017). This chapter demonstrated that the AQ-12 was a valid, reliable, and useful measure of aggression. Further clinical utility is demonstrated by this tool by it being freely available, cost-effective, and quick to administer. Further research would be useful to examine the strength of the test-re-test reliability, and to determine if the tool holds good predictive validity in forensic inpatient populations, as this could inform and support clinical practice.

The literature review established that even with relatively short training interventions, some significant clinically useful changes can be achieved. This is important because evidence shows that the prevalence of abuse is increasing, and leading to higher turnover of nurses and nursing staff (Johnson et al., 2011). Although the review was small, the results of the seven studies offer an early indication of what inpatient psychiatric organisations can do to support frontline staff to be able to remain working safely, to reduce instances of burnout, and maybe even reduce the number of violent and abusive incidents. The results show that attitudinal change is hard to achieve, but may not be essential or useful in order for frontline staff to be able to manage aggression. The results demonstrate that psycho-educative (increasing knowledge and awareness of triggers, and

effects of violence) and practical (role plays and incident drills) interventions can be useful pre-emptive training.

These results support the NICE guidelines which propose that psycho-educative training should be offered to all staff working in psychiatric inpatient services (NICE, 2015). However, it seems that while services offer physical restraint and breakaway training, they do not provide education on using a person-centred approach, understanding the function of behaviour, using de-escalation skills, or post-incident review methods (NICE, 2015). The research found that staff felt under-supported and ill-equipped to deal with the kind of abuse they were experiencing. This left them feeling at once vulnerable at work, and as though they needed to maintain a façade of invulnerability in order to continue working. This also resulted in staff feeling under-valued by their organisation, leading them to believe that the organisation was not invested in supporting them. This seemed to impact their psychological and emotional wellbeing as much as, if not more than, a violent assault. This further emphasises the need for staff to have access to training or other resources that enable them to understand aggression from a person-centred perspective. In the case study this was achieved not through training, but through the reflective case discussion sessions with the team. When working with service-users who are abusive, effective communication can be difficult, and can lead to interpersonal tensions which can in turn increase aggression (Duxbury & Whittington, 2005). The consultancy work with Dan's care team increased knowledge about the function of Dan's actions, and led to staff altering their communication style with him. This yielded better therapeutic relationships, and a reduction in hostility and aggression from Dan.

A further finding from the research was the influence of colleagues, managers, and the organisation as a whole on staff perspectives towards tolerating abuse. The implicit systemic culture of tolerance, the observation of others lack of reporting, and the 'deal with it' attitudes amongst colleagues, led frontline staff to conclude that they too must tolerate abuse (see sections 3.3.3.2 and 3.3.5.1). The systematic literature review posited that the 'critical mass' effect (Whittington & Wykes, 1996) may be important for systemic change (see section 2.4.3). The wards that had 'high compliance' to one way of working experienced a reduction in violence and abuse. However, wards that had partial or low compliance to the prescribed way of working actually saw an increase in violence and abuse. When working in these settings, the most dominant discourse is important for affecting change. Similarly in the research study, the dominant discourse was apparent to individuals, who had to decide whether to conform to the dominant discourse that abuse is part of the job, regardless of their own views, or whether to deviate, thereby risking increased violence from service-users or judgement from staff. Therefore, to resolve cognitive dissonance, staff can become tolerant of abuse, either superficially or authentically (see sections 3.3.5.1 and 3.3.6.3). Research has shown that a superficial acceptance of abuse can result in increased burnout due to the persistence of cognitive dissonance (Rushton et al., 2015). This therefore suggests that interventions such as psycho-education, awareness-raising, and de-stigmatisation training, should to be delivered consistently to all frontline staff for systemic change to be effective. This may have the further implication that in order to achieve a cohesive organisational culture

the entire workforce should receive the same training, so as to endorse a consistent message about how to prevent, manage and report abuse.

Finally, an important understanding derived from the research study was how the 'individual perception' and the 'systemic reception' dynamic perpetuated the tolerance of abuse. This parallels the victim-abuser dynamic in domestic violence literature (Loseke & Cahill, 1984). The research in this thesis demonstrated that the more the system is tolerant of abuse, the more the victim believes that they are over-reacting, and the more cognitive adjustments they make in order to alter their perceptions, thus increasing their tolerance of abuse over time. This can be problematic as it can increase staff burnout. This thesis proposes that this cyclical dynamic can be altered to effect positive change. Should systems encourage the reporting of abuse, and support staff when it occurs, the victim may be better able to cope, thus preventing the likelihood of burnout due to cognitive dissonance (Rushton et al., 2015).

This thesis was not without limitations and its specific shortcomings are discussed in each chapter. One of the major challenges of researching this topic is that although the literature agrees that abuse against nurses is a prevalent issue that needs remedying, there is no consensus on the definitions of abuse, violence, or aggression. Such heterogeneity in these definitions, as outlined in chapter one, makes it difficult for researchers to be certain that they are reliably assessing these constructs. This was problematic for this research; definitions were not given in any of the studies examined in the systematic review in chapter two, and even the AQ-12 did not provide one definition for aggression in chapter four,

although the constructs that comprise aggression were discussed. The research study in this thesis did not provide a definition of abuse as this was an exploratory study assessing how a forensic psychiatric nursing population conceptualised abuse themselves. Similarly, research concerned with experiences, for example of abuse, are inherently subjective, as with all research that is concerned with a victim perspective (Ratner, 2002). Further, organisations, hospitals, and even wards, have different policies governing how they define, deal with, and record data concerned with abuse. In order to better understand some of these issues, chapter three of this thesis explored nursing staff's lived-experience of suffering abuse from service-users at work, and examined how they come to see it as an abusive experience.

6.1.3 Gaps in the knowledge and future research recommendations

Although the systematic literature review demonstrated some useful results, future research would benefit from drawing more directly on how these changes (to knowledge, confidence, and skill) impact on actual rates of violence or abuse. Therefore it is recommended that more organisations evaluate the existing pre-emptive training that they offer staff, and publish results which examine how specific aspects of the training relate to actual rates of violence.

In addition, the results of some studies in the literature review were promising but were difficult to attribute to the training alone (McGowan et al., 1999; Magnavita, 2011). Certain studies involved more than one change occurring at the same time; for example, Magnavita (2011) also introduced changes to the building layout. These types of evaluative studies

are clinically based, and therefore confounding and extraneous variables are difficult to minimise. However it highlighted the potential for environmental changes to contribute to reducing violence and abuse, which is a possible focus for future abuse.

As the case study highlighted, service-users are rarely abusive or violent for no reason, however this belief was prevalent amongst staff. Staff sometimes felt there was no reason for the violence or abuse they were subject to; however, it was also important for them to try to make sense of the abuse and understand the reasons behind it. Feeling as though there was no reason for it made the abuse harder to deal with psychologically. The reflective work in the case study demonstrated that effective consultation with teams helps staff to understand that violence and abuse have a function for the service-user.; In the case study, this work was effective in changing the staff's perspective of Dan's behaviour and thus, in changing their management strategies. Increased understanding led to more situation-appropriate and therapeutic reactions from staff, such as using verbal de-escalation or negotiation, which resulted in many fewer instances of hostility and aggression. Future research would benefit from examining this further, and perhaps exploring the service-user perspective in more detail. Although the case study offers insight into this perspective, perhaps further qualitative research can explore how violent service-users conceptualise their actions, or how service-users on forensic wards in general, conceptualise the violence and abuse that occurs. Exploring this from both the staff and service-user perspective might help in the development of future practices, training, and organisational changes.

Linked to this was the notion of care and abuse being intertwined. In the case study, the service-user experienced care from others as abusive and was difficult for him to tolerate. As such he would become violent and hostile towards staff who were providing the care. On the other hand, staff in the research project felt that to be an effective member of staff on a forensic inpatient ward, a level of violence and abuse is expected. It was proposed for frontline staff, being 'good' at one's job meant one must tolerate a certain level of abuse. This could be further investigated, in order to better understand the dynamic that occurs within a forensic psychiatric service, and with a population of service-users who experience care as abusive, but are mandated under the Mental Health Act to receive care.

6.1.4 Summary

This thesis has contributed to existing research that supports the increased use of training and development for frontline nursing staff in psychiatric services in the management of violence, aggression, and abuse. Frontline forensic psychiatric staff as a group are confronted with an increasingly difficult task in an environment of fewer resources. This thesis suggests that relatively low cost and short interventions can have important therapeutic benefits for these professionals.

In addition, this thesis supports the literature that endorses systemic therapeutic approaches for teams, such as team reflective practice and case formulation sessions, to promote psychological thinking about service-user violence. This encourages organisations to consider how they can better support ward-based teams, perhaps by encouraging incident reporting, supporting staff to press charges where necessary, skilling-up staff, and

delivering training. In doing so, staff are more likely to feel valued, skilful, and equipped to manage the challenges of forensic psychiatric work.

This thesis has made an original contribution to the existing literature, which helps to widen the perspective with regards to how abuse is conceptualised not only by forensic nursing staff, but also by service-users who act abusively. Forensic psychiatric nursing staff in particular deal with specific issues relevant to forensic working. Therefore, it is recommended that future work focusses on how abuse is conceptualised by staff within these systems, to aid the development of strategies to lessen the abuse and help them to safely remain in this profession.

Finally this thesis has made recommendations for future research. With abuse against psychiatric and forensic psychiatric staff becoming an increasing concern, this issue is an important and timely one to consider for further investigation. In particular combining the service-user and staff perspective (i.e. the victim and abuser perspectives) may hold some benefit in widening perspectives and merits further exploration.

More research is needed which evaluates training offered to psychiatric nursing staff, and more specifically for forensic frontline staff. There are some promising results however they are far from conclusive. Further research would be useful in determining what currently works; which aspects of training are most useful (for example role-play or psychoeducation); and what the actual effects of training are on rates of assault, abuse, and aggression.

The AQ-12 may benefit from further evaluation with regard to test-retest reliability and predictive validity. It has demonstrated adequate to good psychometric properties, and was clinically useful for assessing change in the case-study. However further research could determine whether or not this tool can be used in a predictive capacity, which would further its clinical utility in forensic services where the prediction of aggression can be important to protect staff and to inform interventions.

This thesis did not aim to develop definitions of abuse, but rather to contribute to current research, and highlight the reasons for and need for individualistic approaches to developing a shared understanding of terms such as abuse in specific contexts. Future work within organisations could consider developing local shared understandings, which may be more clinically useful for frontline staff, and can help organisations support staff to enforce policies and report incidents. In being able to develop shared understandings with service-users about what constitutes abuse, the reasons behind abusive behaviour, and how staff can help prevent this, instances of abuse can be minimised and staff may feel more able to work in these challenging environments.

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APPENDICIES

Appendix A. Search Syntax

Cochrane Library The Cochrane Library was searched on 23/06/2017 for the period of 1900 (default earliest date on website) to 23/06/17.
1. nurse –(12161)
AND
2. mental health OR psychiatric –(41613)
AND
3."violence prevention" OR "violence management" OR "aggression prevention" OR "aggression management" OR "violence reduction" OR "aggression reduction" – (383)
AND
3."training" or "course" or "programme" or "management" or "intervention" or program* -(279263)
AND
5.incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude – (200737)
6. (#1 AND #2 AND #3 AND #4 AND #5) - (17)

AMED, BNI, CINAHL, EMBASE, HBE, HMIC, Medline, PsycINFO, and PubMed were searched using the HDAS interface on 22/06/2017 for the period of 1887 (default earliest date on HDAS) to 22/06/2017.

AMED
1. (Nurse).ti,ab – (1773)
AND
2. (mental health OR psychiatric).ti,ab –(5984)
AND
3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab –(13)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab –(51912)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude).ti,ab (47906)
6. (1 AND 2 AND 3 AND 4 AND 5) – (0)

BNI Searched on 22/06/17
1. (Nurse).ti,ab –(70029)
AND
2. (mental health OR psychiatric).ti,ab –(33894)
AND

3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab –(1200)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab –(143547)
AND
5.(incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude).ti,ab –(116717)
6. (1 AND 2 AND 3 AND 4 AND 5) – (20)

CINAHL Searched on 22/06/17
1.(Nurse).ti,ab – (185564)
AND
2. (mental health OR psychiatric).ti,ab – (76359)
AND
3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab –(1328)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab – (573574)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude).ti,ab – (458442)
6. (1 AND 2 AND 3 AND 4 AND 5) – (26)

EMBASE Searched on 22/06/17
1. (Nurse).ti,ab – (117606)
AND
2. (mental health OR psychiatric).ti,ab – (328061)
AND
3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab – (1786)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab – (3260968)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job

satisfaction OR sickness absence OR sick leave OR attitude).ti,ab – (3217498)
6. (1 AND 2 AND 3 AND 4 AND 5) – (4).

HBE Searched on 22/06/17
1. (Nurse).ti,ab – (22022)
AND
2. (mental health OR psychiatric).ti,ab – (21752)
AND
3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab – (458)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab – (449250)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude).ti,ab – (161980)
6. (1 AND 2 AND 3 AND 4 AND 5) – (0)

HMIC Searched on 22/06/17
1. (Nurse).ti,ab – (11765)
AND
2. (mental health OR psychiatric).ti,ab – (22154)
AND
3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab – 954)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab – (77761)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude).ti,ab – (52274)
6. (1 AND 2 AND 3 AND 4 AND 5) - (0)

Medline Searched on 22/06/17
1. (Nurse).ti,ab – (109442)
AND
2. (mental health OR psychiatric).ti,ab – (271381)
AND

3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab – (9460)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab – (2464314)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude).ti,ab – (2531458)
6. (1 AND 2 AND 3 AND 4 AND 5) – (29)

PsycINFO Searched on 22/06/17
1. (Nurse).ti,ab – (21255)
AND
2. (mental health OR psychiatric).ti,ab – (309861)
AND
3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab – (12945)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab – (857079)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job satisfaction OR sickness absence OR sick leave OR attitude).ti,ab – (916507)
6. (1 AND 2 AND 3 AND 4 AND 5)- (29)

PubMed Searched on 22/06/17
1. (Nurse).ti,ab – (340491)
AND
2. (mental health OR psychiatric).ti,ab – (818333)
AND
3. (violence prevention OR violence management OR aggression prevention OR aggression management OR violence reduction OR aggression reduction).ti,ab – (45239)
AND
4. (training OR course OR programme OR management OR intervention OR program*).ti,ab – (4601353)
AND
5. (incident* OR assault* OR injury* OR knowledge* OR skill* OR confiden* OR burnout* OR illness* OR stress* OR sick* OR turnover OR job

satisfaction OR sickness absence OR sick leave OR attitude).ti,ab – (9497131)
6. (1 AND 2 AND 3 AND 4 AND 5) – (562)

Appendix B. List of Excluded Studies

Studies that did not meet the inclusion criteria

Author(s)	Reason
1. Tomy, 2014	Article type: not an empirical study
2. Blando et al. 2013	Intervention: none
3. Beech, 2008	Population: non nursing
4. Butterworth & Harbison, 2010	Article type: not an empirical study
5. Bowers et al. 2006	Intervention: not appropriate
6. Farrell et al. 2014	Article type: opinion paper
7. Al-Ali et al. 2016	Population: military nurses
8. Özcan et al. 2015	Intervention: none
9. McCann et al. 2014	Intervention: none
10. Livingston et al. 2010	Article type: narrative review
11. Lanza et al. 2009	Population: community nurses
12. Hills, 2008	Population: general nursing
13. Sheridan-Leos, 2008	Article type: not an empirical study
14. Lesinskiene et al. 2007	Intervention: none
15. Dunn, 2007	Article type: narrative review
16. Cowin et al. 2003	Article type: narrative review
17. Richardson et al. 2002	Population: non psychiatric
18. Duxbury, 2002	Intervention: none
19. Morrison, 2002	Article type: review
20. Delaney et al. 2001	Intervention: none
21. Crichton & Calgie, 2002	Intervention: none
22. Cahill et al. 1991	Article type: narrative review
23. Heckerman et al. 2015	Population: general nursing
24. Shu-Li et al. 1999	Language: unavailable in English

Studies that did not meet the Minimum threshold for quality assessment

Author(s)	Reason
1. Meehan et al. 2006	Minimum quality threshold not met
2. Needham et al. 2004	Minimum quality threshold not met
3. Rice et al. 1985	Minimum quality threshold not met
4. Bjorkdahl et al. 2013	Minimum quality threshold not met
5. Emmerson et al. 2007	Minimum quality threshold not met
6. Parkes, 1996	Minimum quality threshold not met
7. McLaughlin et al. 2010	Minimum quality threshold not met
8. Paterson et al. 1992	Minimum quality threshold not met
9. Nhiwatiwa, 2003	Minimum quality threshold not met

Appendix C. Data Extraction Pro-forma

Data Extraction Pro-forma Date: Extracted by:	
Author:	DATA EXTRACTED
Study Aim	
Country	
Setting	
Study design	
Recruitment methods	
Number of participants	
Profession of participants	
Intervention	
Outcome measure used?	
Data collection method	
Analysis	
Outcomes observed	
Follow up?	
Analysis used	
Attrition rate noted?	
Limitations	

Appendix D. Quality Assessment Tool

Quality Assessment Tool (adapted from National Collaborating Centre for Methods and Tools)						
Threshold Criteria met? 1) Clear description of research objective? Y N 2) Clear definition of population? Y N 3) Clear definition of outcome measures used? Y N						
Y= Yes P= Partially N= No U =Undecided	Rating: 1= Strong 2= Moderate 3= Weak					
Criteria	**Y**	**P**	**N**	**U**	**Comments**	**Rating**
A) STUDY INFORMATION						
1. Was the research question or objective in this paper clearly stated? *If the aim was not explicit, was there a clear rationale for the research done or a general sense of the research objective after reading the introduction?*						
2. Was the location and population described? *General details suitable for the aims of the studies.*						
B) SELECTION BIAS						
1. Are the individuals selected to participate in the study likely to be representative of the target population?						
2. Was the population clearly specified and defined? *This need not be hugely detailed in the methodology; important to note the population in terms of profession (whether there were multiple professions being surveyed*						
3. Were groups appropriately matched relative to the study design? *Based on design, some studies may not require rigorous matching*						
C) STUDY DESIGN						
1. Indicate the study design: 1 Randomized controlled trial 2 Controlled clinical trial 3 Cohort analytic (two group pre + post) 4 Case-control 5 Cohort (one group pre + post) 6 Interrupted time series 7 Other specify _____ 8 Can't tell					Comments: **Strong**: will be assigned to those articles that described RCTs and CCTs. **Moderate**: will be assigned to those that described a cohort analytic study, a case control study, a cohort design, or an interrupted time series. **Weak**: will be assigned to	

					those that used any other method or did not state the method used.	
2. Was the study described as randomized? (If NO, go to Component D.)						
3. If Yes, was the method of randomization described?						
4. If Yes, was the method appropriate?						
D) CONFOUNDERS						
1. Were there important differences between groups prior to the intervention?						
2. Were differences accounted for where applicable? *(E.g. matching, stratification etc.)*						
E) DATA COLLECTION METHODS						
1. Was there a clear methodology and detail of what was asked of participants? Various methods used may illicit different responses. Was there a clear rationale for gathering the information that they did? *NOTE: Were the questions included in the write-up? Was the methodology of data collection (i.e. use of Likert scales, open ended questions etc.) noted in the study?*						
2. Were the outcome measures clearly defined, valid and reliable?						
3. Were outcome measures implemented consistently across all study participants?						
F) WITHDRAWALS AND DROP-OUTS						
1. Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?						
2. Was attrition accounted for in analysis?						
G) INTERVENTION INTEGRITY						
1. Was the intervention clearly described?						
2. Was the intervention appropriate for the aims?						
3. Was the intervention consistently provided *(E.g. same method, similar time etc.)*						
H) ANALYSIS						
1. Are the analytical methods appropriate? *(E.g. appropriate statistics or qualitative analysis)*						
2. Is the analysis reported clearly and without bias?						

(e.g. all results reported, not just significant results)						

GLOBAL RATING COMPONENT RATINGS
Please transcribe the information from the 'Ratings' boxes on pages 1-4 onto this page.

A- Study Design
STRONG MODERATE WEAK
1 2 3

B- Selection bias
STRONG MODERATE WEAK
1 2 3

C – Study design
STRONG MODERATE WEAK
1 2 3

D- Confounders
STRONG MODERATE WEAK
1 2 3

E – Data collection methods
STRONG MODERATE WEAK
1 2 3

F-Withdrawals and drop-outs
STRONG MODERATE WEAK
1 2 3

G- Intervention Integrity
STRONG MODERATE WEAK
1 2 3

H –Analysis and Results
STRONG MODERATE WEAK
1 2 3

GLOBAL RATING FOR THIS PAPER (circle one):
1 STRONG (no WEAK ratings)
2 MODERATE (one WEAK rating)
3 WEAK (two or more WEAK ratings)

With both reviewers discussing the ratings:
Is there a discrepancy between the two reviewers with respect to the component (A-H) ratings?
No Yes

If yes, indicate the reason for the discrepancy:
1 Oversight
2 Differences in interpretation of criteria
3 Differences in interpretation of study

Final decision of both reviewers (circle one):
1 STRONG
2 MODERATE
3 WEAK

Appendix E. Results of Quality Ratings

	Assessor 1	Assessor 2	Outcome
Muthuvenkatachalam, Chetana, Kaur, Joshi, Negi, & Sonika (2014)	Moderate	Weak	Re-assessed Difference in interpretation of the criteria Agreed on moderate result
Magnavita (2011)	Strong	Strong	Agreed
Hahn, Needham, Abderhalden, Duxbury, & Halfens (2006)	Strong	Strong	Agreed
Needham, Abderhalden, Halfens, Dassen, Haug, Fischer (2005)	Strong	Strong	Agreed
Ilkiw-Lavalle, Grenyer, & Graham (2002)	Strong	Strong	Agreed
McGowan, Wynaden, Hardling, Yassine, & Parker (1999)	Moderate	Weak	Re-assessed Difference in interpretation of the criteria Agreed on moderate result
Whittington & Wykes (1996)	Moderate	Moderate	Agreed

$$\text{Percent agreement} = \frac{\text{(Number of concordant responses)}}{\text{(Total number of responses)}} \times 100$$

$$= \frac{54}{56} \times 100$$

$$= 96.4\% \text{ agreement}$$

Appendix F. Brief Background of the Analyst

The analysis was carried out by the author who at the time of the study was 25 years old and had worked in forensic in-patient settings within the NHS and private sector hospitals over the past three years as a trainee. The original impetus for this study was borne out of reflections about the staff on a forensic low secure ward with whom the author was working with. This staff team were voicing their experiences about struggling to retain staff due to a high volume of staff off on 'long term sickness absences'.

The author also facilitated a staff reflective practice session on a weekly basis for a staff group within the same hospital (on a ward she did not work with), who were also struggling with similar staffing sickness. The narrative for the staff team was one of feeling abused at work, and 'dreading' their shifts, despite once having enjoyed their work. The reasons most cited for long-term sickness absences were the challenging behaviours experienced from service-users that were difficult to manage. From a research perspective, this seemed like a current and relevant issue not only for these wards, but also for mental health nursing staff in general. It has been an issue that has affected psychiatric inpatient nursing staff for many years however many staff found it difficult to express what was challenging to manage about the behaviour of service-users. Some staff expressed their experiences as abusive, whereas other did not. As a result a research question was developed to explore what staff actually conceptualised as 'abuse' and what factors influenced this.

In developing this research, a qualitative approach seemed most suitable to explore how a staff team conceptualises abuse, with a quantitative element to determine if any demographic factors contribute to this. Those who participated in the interview were staff working within the forensic wards in the same hospital as the author. Hence the author came equipped with a particular set of experiences, which may have led to preconceptions about the data. For instance, it was presumed that the participants were likely to possess related beliefs and experiences similar to those experiences of people the author had worked with.

The author therefore bought her clinical knowledge and experience to the data and the results inevitably reflect some of this. It should be noted that the author is located outside the dominant cultural discourse in forensic settings, which consider the abuse of staff by service-users, as an event that can be managed and that informs agendas for developing solutions from a staff perspective. Therefore the author is possessed with value-laden motivations against this discourse which is shown by the focus being on experience, perceptions, and constructions of abuse rather than topics that directly inform clinical implications in itself. Being positioned outside the dominant discourse also allows the author to come with a perspective that is not aligned with the participants who work on the frontline.

During the research, a reflexive diary (Finlay, 2008; Ortlipp. 2008) was maintained to enable a process of self-reflection about the author's preconceptions about how these influenced the case-by case analysis, and to demonstrate analytical rigour (Yardley, 2000). The example below demonstrates the process of becoming critically aware of the invasive influence of the 'clinical perspective' on the data and engaging more openly with personal meaning, when analysing the first transcript.

"I am surprised that the perspective of these experiences, are repeatedly one of being non-abusive, especially considering the context of the interview; the context of being asked to tell me their narrative of any abusive experience at work. I am aware that minimisation of the severity of the experience is something that is a coping strategy for many staff that I have interviewed, and here is it apparent again. So why am I continuously surprised? Perhaps my own morals and beliefs about these experiences are that they shouldn't have to be tolerated by staff, is one reason.

On the other hand, when I think back to the time I worked as a support worker on a psychiatric inpatient ward, I am reminded of the reflections I had at the time. I am reminded that I felt like I was walking into a bubble; into another world, where the rules of this land were different. I am also reminded how often people would tell me how I was 'so lucky' to have not been physically assaulted yet. The message this sentiment sends is one of impending doom, the idea that it is inevitable. So, when I think about it

further, am I still surprised that the staff I am interviewing have such views? No, the more I reflect on it, the more I can see the narratives that the staff build around their experiences; and the more I can see the process by which they are making sense of these experiences."

Inevitably in the analysis process, the author realised she was allowing herself to be guided by her professional, clinical, and academic experiences and opinions on this topic, rather than allowing herself to listen to and understand the participant's meaning-making. Therefore in the analysis stages, the author intentionally and meaningfully tried to engage with the data in a rigorous manner in order to combat these inevitable clinical and personal perspectives. Paying great detail to the formal methods outlined by Smith & Flowers (2009) the author analysed first the descriptive language used, staying close to the raw data with little interpretation. This is followed by a reread of the transcripts focusing on the linguistic terms used and linking this to the descriptive information gathered. The final read through focused on the conceptual data and how this contributed to the overall narrative of the participant's sense-making, of the story they have chosen to share. The overall picture allows for qualitative interpretation without straying too far from the actual data, thus helping to ensure the author's perspectives were not pervasive in this subjective interpretative process. Nevertheless, as stated, it is natural that the interpretations are coloured by the author's perspectives as the analyst.

Appendix G. Sample Transcript of IPA Analysis

Main themes	Emergent subthemes		Original transcript	Exploratory comments
How the systems around them evaluate the event has an impact on the individual's own evaluation (Systemic evaluation) Reaction from others (Systemic reaction)	Abuse should not be part of the job nut is tolerated Should be abuse but isn't considered to be by team.	75 76 77	Well yeah, I spoke about it for probably about a week, gauging everybody's reactions and obviously people were shocked at the initial act but probably not shocked that it happened if you see what I mean.	*'gauging'* – assessing or evaluating what other's reactions are to infom own evaluation of event. This speaks to the interpretive process of understanding HOW an event comes to hold significance. not shocked it happened- Other's reactions were that it is expected - abuse is expected?
		78	Were they the more senior people you spoke of?	
The way the system receives individual's abuse (Systemic evaluation) Effect on the individual (Individual impact) & (Systemic reaction) (Systemic evaluation)	Systems (ward) around says abuse occurs at work – inevitable (abuse is tolerated) Can't let team down Other's response informs individuals understanding Judgement from others if individual is affected	79 80 81 82 83 84 85	Yeah people who had seen things like that happen before and yeah. I think that then as well it was more the case of, that's the nature of the job, get on with it. So it wasn't callous, because it was a very good team, I mean I had chose to work on there, like I say I worked for an agency so I could have said no I'm not working on there, I'm working on a different ward. But it was a very good nursing team, but it certainly were sort of like, right something's	Nature of the job: The way the system receives individual's abuse is to say that it has happened – but that you should carry on – no real support emotionally or practically – not felt as callous – rather just what should be expected. sets up the system to be accepting that abuse occurs to their staff. 'get on with it' – no support from managers? emotional support? time off? Systems lack of reaction to it informs individual's own understanding. *'but'* – good but not supportive. Like there is a sense that own reaction to abuse is less important – need to be part of the team, so need to accept the team/ systemic view that abuse is normal / 'the nature of the job'

Individual impact Understanding individual's own tolerance (Individual tolerance)	(façade) Appear invulnerable (get on) Emotional distancing (implicit acceptance) Part of the job	86 87	happened to you, take a deep breath and get on with it, get back to it, you know, deal with it, learn from your experience.	Deep breath-get on-get back –sense that there is a performance, a professional façade, professional armour, identity different at work? *'You know' –implicit acceptance that all should know?* Deal with it. –how does he deal with it? Evaluating and making decisions about own tolerance. Distance emotions? Others reaction informed his 'dealing' with it.
		88	Did it change how you worked with that client, or those clients?	
Self-evaluation of own tolerance (Individual tolerance Constructing and questioning event (Making sense) Evaluative of own tolerance (Individual tolerance)	(thinking about impact on self) Desensitised (struggle with own opinion) Making sense is important (questioning why abuse) Reason attribution Mad v Bad Illness-led violence as different? Harder to manage abuse when patient is 'ill' or 'mad'	89 90 91 92 93 94 95 96	I wouldn't say, no, I wouldn't, no. I think whenever you come up against anything like that that's certainly not as severe as that, that's one of the more severe ones. Erm, it sort of yeah, no because it's sort of a question that was banded around a lot in my early days of starting in this field was, 'is it bad or is it mad?' you know, was it madness or was it badness? I think a lot of the violence we saw and experienced was through sheer psychotic behaviour. There wasn't, they were obviously doing it, but it were led by paranoia, by their illness.	*Repetition of 'no' & 'wouldn't' – sense of struggle with articulating the impact abuse has on self* *Severe*-that is now considered severe? Even severe acts do not change the way you work? desensitised? *'Yeah' & 'no' & 'sort of' confusion of if it changes his view?* Difficulty in understanding the act's impacts on self? Questioning – making sense of this is important- sense that may people questioned this behaviour at some point back in the early days Comparison to previous experience gives some contextual understanding Mad or bad? Some sense of a dichotomy – must be one or the other. Sheer psychotic *–emphasising the extremeness of the behaviour* different from how the 'not as severe as that' above. Led by illness = madness? excused if led by mental illness?
		97	Does that make a difference then?	

Effect on the individual (Individual impact) Individual tolerance Systemic evaluation Individual Impact Individual Impact Individual impact Systemic evaluation	Never accept it Distance emotionally Part of the job Abuse is inevitable Part of the job Wouldn't tolerate abuse outside of work but do at work Learn from others that abuse shouldn't be part of the job but it is tolerated Emotionally distance Re-evaluation Self that has to change Distance emotionally Learning from others – learn that you must tolerate abuse	98 99 100 101 102 103 104 105 106 107 108 109 110	It makes a massive difference to how I view and, no accept, because I never accept it, but get on and get over it. It's part of that, you know, if you're on a locked ward, you know the people there, they aren't there because they have committed acts of kindness you know. They are there for a reason, so you know the potential is there and I suppose its spotting the signs before they come, you know, before it actually happens. It's not, it didn't affect the way I worked there, I think I worked there even more after that and I took my job on a locked forensic ward when I got my permanent job so it certainly didn't change how I worked with people. I think I viewed situations a lot more cautiously, didn't just haphazardly sit around the ward, I chose where I was sitting. I think it's just a learning process, what you are seeing, you observe a lot more into, and you can read a lot more into situations	*Massive*-Comparison to above where he says it doesn't affect his behaviour, here it does. Struggle with identity at work? different to home persona? *Never*- Doesn't accept abuse but it doesn't change his work either? sense of split-off professional self? get over it Part of the work –implied sense of inevitability? Not kind acts There for a reason –implied that they are there for violence – so it should be expected? Potential is there -Sense of inevitability? Signs –does this mean he is responsible for preventing abuse if there are 'signs' to be spotted? self-involvement in the abuse occurring? *It didn't affect*-Telling self that there was no impact at all, but this is not what he goes on to say. Sense that one has to tell self that there is no impact in order to carry on working? *Certainly didn't change*—this had no effect on interactional style? this seems different to what is said below . More cautious – cautious of situations? or people? but can't allow self to appear. I chose –so he has changed his behaviour? was it his behaviour that was problematic? Just a learning process – minimising the event – emotionally distancing self from pain of trauma? Learn from others around him – link to earlier talk about observing colleagues to "gauge how to react"

		111 112	when you've actually got that. You understand the potential for what could happen.	Understand the potential for harm from service-users. Intellectually understands the potential to be seriously hurt in this work. – different from emotionally?
		113 114 115	You talked about mad versus bad and how that makes a difference to how these behaviours are 'accepted'. In the incident with the tea you talked about 'madness', what about if it is 'bad'?	
Evaluative process (Individual tolerance)	Bad is harder to manage Mad v Bad Tolerance higher for mad	116 117	Different concept, it's harder to get over, harder to understand. Throws up a lot more feelings of resentment certainly towards the person.	*Firmness, definitive sentences* – badness is harder to understand –is this because before it was "obviously" led by paranoia/illness which meant he was able to "get over it"? Resentment towards person so this then does change the way he works with 'bad' people? Higher tolerance for those considered to be 'mad?'

Note: Descriptive comments (normal); Linguistic comments (italics); Conceptual comments (underlined)

IPA process: 1) noting the descriptive, linguistic and conceptual annotations in the right hand column. 2) Through understanding and interpreting these elements to make sense of *how* the person is making sense of their experience, some subthemes emerge in the second from left column called 'emergent subthemes'. 3) The first column on the left shows how the emergent themes were grouped together when they thematically clustered around a main topic or theme. This column shows the 'main themes' emerging. 4) Conducted this process across all transcripts. This means themes adapt and alter to fit the data; therefore final names of subthemes and themes may be slightly different in final text. This example shows how the IPA process was implemented.

Appendix H. Semi Structured Interview Schedule

Questions and Topics:

- Please could you tell me what your job role is and how long you have been doing it?
- What does the term 'abuse' mean to you?
- Can you tell me what you consider abusive behaviour at work from service-users?
- Can you tell me about a time that you have experienced abuse at work from service-users?
- What made that behaviour or situation, be considered 'abuse'? When did it become abuse?
- How do you react when that happens? How did that affect you? (at home, at work, with clients, with staff… etc.)
- How did you / do you deal with that? What happened? How is it dealth with?
- Can you tell me what other's reactions are when this happens?
- Are there differences in different contexts? Would this be different outside of work?
- What do you consider important to understand this behaviour?
- How does this experience fit with the expectations of your job role?

Prompts:

- Can you tell me a bit more about that?
- What do you mean by 'xxxx'?
- How did you feel?
- Why?
- Summarise: …so you said that this was hard for you. Can you tell me more about that..?
- Check out: so you're saying….?

Appendix I. Vignette Question

"You go to wake up a service user at 11am to remind them they have an appointment with a solicitor in an hour; they ignore you and turn over. You try to encourage them to wake up. They get out of bed and walk up to you, saying "go away" and close the door in your face.

Eventually the service user wakes up and comes into a quiet lounge room which is off from the main living space. There are no other service users or staff around. The solicitor arrives. You go to get the service user, they ignore you, and turn up the volume on the television. When you try to talk to them, they shout at you to 'fuck off'. As you continue to explain the situation to them, they stand up and approach you. They are in your personal space and they start arguing with you loudly. They start to swear at you and call you names. They start to pace up and down, just in front of you while they are shouting and gesturing their arms.

As the service user is angrily moving about, they knock all the cups and magazines off the table in one angry sweeping motion of their arms. They start screaming to be let out of the ward and threatening to harm other people if they are not let out. Other staff have come over and are trying to talk to the service user.

The service user continues to shout at you, calling you names, saying terrible things about you, and threatening you and others. You ask them if they would like to access the de-escalation room to calm down. They refuse. They pick up the TV remote and throw it at you, which hits the side of your face. The service user is held in fore-arm holds and guided towards the de-escalation room. As you are doing this, the service user becomes very resistive and tries to kick you. They then try to spit at you. As you guide them through the door to the de-escalation room entrance, the service user attempts to shove you heavily against the door frame. They manage to kick your leg. When you are in the de-escalation room, and the service user appears to be more settled, and you get up to leave them to calm down on their own, the service user gets up and runs towards you and punches you in the face."

Question asked on the next web page:

In your opinion, at which point if any, would you consider the behaviour to have become abusive? (*Please select one option and leave comments in the space below)*

1. "…they get out of bed and walk up to you, saying "go away"…"
2. "…close the door in your face…"
3. "…they ignore you, and turn up the volume on the television…"
4. "…they shout at you to 'fuck off'…"
5. "…they are in your personal space…"
6. "…they start arguing with you loudly…"
7. "…they swear at you and call you names…"
8. "…they start to pace up and down, just in front of you while they are shouting and gesturing their arms…"
9. "…the service user is angrily moving about, they knock all the cups and magazines off the table…"
10. "… they start screaming to be let out of the ward…"
11. "…threatening to harm other people if they are not let out. …"
12. "…loudly calling you names, saying terrible things about you, …"
13. "…threatening you and others…"
14. "…they pick up the TV remote and throw it at you…"
15. "…the service user becomes very resistive and tries to kick you…"
16. "…they then try to spit at you…"
17. "…the service user attempts to shove you heavily against the door frame…"
18. "…they manage to kick your leg…"
19. "…the service user gets up and runs towards you and punches you in the face…"
20. None of the above, I do not consider any of the above to be abusive behaviour.

Comments:

(*Please use this space to give any additional comments or thoughts)*

_____
_____
_____

Appendix J. The 12-item Bryant & Smith (2001) AQ -12

For each of the following statements, indicate how true or false the statement is for you.

1= Completely false for me
2= Mostly false for me
3= Slightly false for me
4= Slightly true for me
5= Mostly true for me
6= Completely true for me

Statement	**Rating**
1. There are people who push me so far that we come to blows	
2. Given enough provocation, I may hit a person	
3. I have threatened people I know	
4. I often find myself disagreeing with people	
5. I can't help getting into arguments when people disagree with me	
6. My friends say I'm somewhat argumentative	
7. I have trouble controlling my temper	
8. Sometimes I fly off the handle for no good reason	
9. I flare up quickly but get over it quickly	
10. At times I feel I have gotten a raw deal out of life	
11. Other people always seem to get the breaks	
12. I wonder why sometimes I feel so bitter about things	

Scores: Very Low: 1-29; Low: 30-39; Low Average: 40-44; Average: 45-55; High Average: 56-59; High: 60-69; Very High: 70+

Appendix K. HCR-20 Version 2 Summary Report

This assessment is completed on the electronic recording systems and this is a summary report. This assessment used file reviews and clinical note. Dan also engaged in a three session collaborative risk interview where he discussed his understanding of which factors have contributed to his increased risk.

Eight of the ten historical items were assessed as present for Dan; *Previous violence, Young age at first violent incident, Relationship instability, Employment problems, Substance use problems, Major mental illness, Early maladjustment* and *Personality disorder.* The one item assessed as possibly or partially present is *Prior supervision failures*. The item *psychopathy* was omitted.

Three of the five clinical items were assessed as present; *Lack of insight, Negative attitudes* and *Impulsivity.* These were considered highly relevant to his risk of future offending or risk behaviour. One item was coded as possibly present was *Unresponsive to treatment* and one item was coded as not present; *Active symptoms of major mental disorder.*

Three of the five risk management items were assessed as present; *Exposure to destabilisers, Stress* and *Lack of personal support*. These items are considered as highly relevant to Dan's risk of future violence in the community. As an inpatient these risks are currently mitigated but highlight some future treatment goals. The remaining two risk management items were assessed as partially present; *Plans lack feasibility* and *Non-compliance with remediation attempts.* Dan's risk of violence was considered to be medium with a low imminence.

Appendix L. Outcome Measures Scores

Rosenberg Self-Esteem Scale (RSES)

	Raw Score	Interpretation
Pre-intervention	13	Low self-esteem range
Post-intervention	18	Normal self-esteem range

Scores: 0-15=Low Self Esteem; 15-25=Normal Self-Esteem; 25-30=High Self-Esteem

Aggression Questionnaire (AQ-12)

	Physical aggression	Verbal aggression	Anger	Hostility	Total
Pre-intervention	18	16	14	16	60
Post-intervention	14	14	13	14	55

Scores: Very Low=1-29; Low=30-39; Low Average=40-44; Average= 45-55; High Average=56-59; High=60-69; Very High=70+

Young Schema Questionnaire (YSQ)

Early Maladaptive Schema Identified	Coping strategy	How this manifests
Mistrust / Abuse	Avoidance	Avoids close involvement with others in personal life. Does not confide in others or self-disclose
Abandonment / Instability	Overcompensation	Pushes others away by being controlling in the relationship
Negativity / Pessimism	Surrender	Minimises positive events and exaggerates negative ones. Always thinks about the worst outcome.
Defectiveness / Shame	Overcompensation	Behaves in a critical or aggressive manner towards others to avoid being criticised.
Failure	Avoidance	Does not try with real effort, avoids new challenges to avoid failing.

Social Problem Solving Inventory – Revised (SPSI-R)

Scale	Pre-score interpretation	Post-score interpretation
Positive Problem Orientation (PPO)	Very much below norm group average	Below the morn group average
Negative Problem Orientation (NPO)	Very much above group average	Average to the norm group
Rational Problem Solving (RPS)	Below norm group average	Average to the norm group
Impulsivity/ Carelessness style ICS)	Above norm group average	Above norm group average
Avoidance style (AS)	Above norm group average	Average to the norm group

NOTE: Norm group is inpatient psychiatric adults

Appendix M. WAIS & W-TAR Summary

WAIS-IV assessment Outcome and Interpretation

This is an individually administered test of a person's intellectual ability and cognitive strengths and weaknesses. It is comprised of 10 core subtests which measure both verbal skills and specific non-verbal abilities. Dan completed all 10 core subtests.

Dan's *Full Scale IQ* is not considered to be an accurate representation of his overall performance because of a significant variation in his scores. His Processing Speed scores were much lower than his scores on the other three Indexes, which resulted in a lowering of his Full Scale IQ. In this instance it may be worth considering the Global Ability Index score (GAI) as this is not influenced by his scores on working memory and processing speed tasks. His performance on the Verbal Comprehension and Perceptual reasoning yielded similar results which means they can be combined to obtain his GAI. This score may be interpreted as a reliable and valid estimation of his overall intellectual abilities. Dan obtained a GAI of 100 which falls within the 'average' range. The chances are good (95%) that his true GAI score lies somewhere between 94 and 106. His GAI score is ranked at the 50th percentile, indicating that he scored higher than 50% of other individuals of the same age in the standardisation sample.

Dan's *Verbal Comprehension Index (VCI)* score, which measures verbal conceptualisation, knowledge and expression, fell within normal limits in the 'average' range. The VCI is a measure of crystallized intelligence and represents Dan's ability to reason with specific, previously acquired information, such as that learnt at school. This level of score suggests he should have a good ability to express himself and be able to understand questions and information. Dan should not have any difficulty understanding simple instructions or concepts unless they are particularly complex.

The *Perceptual Reasoning Index score (PRI)* measures non-verbal thinking and visual motor coordination which involves solving the kinds of problems that are not school taught. Dan's score in this index fell within the 'average' range. This level of score suggests that he should have a good ability in terms of non-verbal thinking and reasoning, and should be able to work with visual stimuli effectively. He should also manage to respond appropriately to novel situations that are not based on school acquired knowledge.

Dan's score fell within the 'average' range on the *Working Memory Index (WMI)* score, which measures active short-term memory and sequential processing. This level of score suggests that he should have a reasonable

ability to hold onto and manipulate information, allowing him to plan and sequence adequately. He should only require support if he is required to process very complex information.

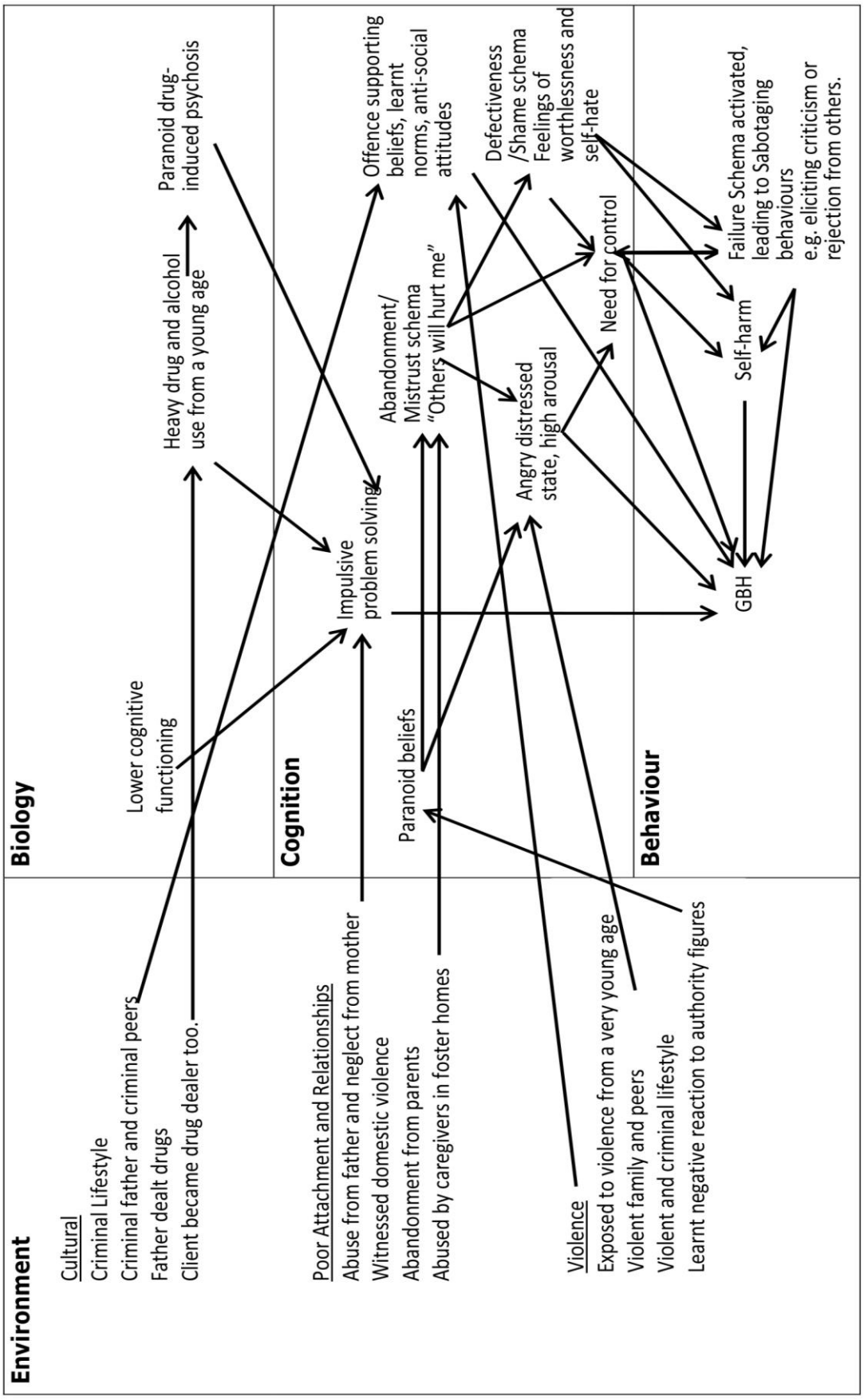
Dan's *Processing Speed Index score (PSI)* which measures response, motor and thinking speed, fell within the 'below average' range. This level of score suggests that he may have slower reactions and motor speeds than some people and may require more time to process information or questions. He may find it hard to answer several questions at once. My own observations support this in that I have noted that Dan requires a few moments longer to respond to more complex questions. In comparison to the three other indexes comprising his full Scale IQ, his PSI score marks a relative weakness for Dan.

W-TAR Assessment Outcomes and Interpretation

This is an individually administered test of an individual's level of intellectual functioning before the onset of injury or illness. It is a reading test that takes approximately ten minutes to complete.

The Wechsler Test of Adult Reading (W-TAR) provides an estimate of pre-morbid intellectual functioning, crystallized intelligence and memory ability. Unlike many intellectual and memory abilities, reading is thought to remain relatively stable over time. Dan's gained a score of 104 which falls within the 'average' range. This assessment relates to the WAIS-IV in which his Full Scale IQ score was 94 and also fell within the 'average' range. Although his abilities still fall within the 'average' range, his W-TAR score of 104 in relation to his Full Scale IQ score of 94 on the WAIS-IV, suggests that there may have been a slight decline in cognitive functioning since he became unwell.

Appendix N. Morton Formulation of Client's Violence



Appendix O. Consent Form

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Cygnet Health Care

CONSENT FORM
Final version 1.0

Title of Case Study: Assessment and Intervention.

Name of Researcher: Davina Patel

Name of Participant [redacted] **Please initial box**

1. I confirm that I have read and understand the information sheet version number 1 dated [19/12/13] for the above study and have had the opportunity to ask questions. ✓

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my psychological care or legal rights being affected. I understand that should I withdraw then the unidentifiable information collected so far cannot be erased and that this information may still be used in the project analysis. ✓

3. I understand that relevant sections of my care notes and the data collected in the study may be looked at by authorised individuals from the University of Nottingham, the researcher's supervisors and regulatory authorities where it is relevant to my taking part in the study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish anonymous information obtained from my participation in this study. I understand that my personal details will be kept confidential. ✓

4. I agree to my responsible clinician being informed of my participation in this study. ✓

5. I agree to take part in the above study. ✓

[redacted]	8/1/14	[redacted]
Name of Participant	Date	Signature
DAVINA PATEL	8/1/14	
Name of Researcher	Date	Signature

Appendix P. Motivational Decision-Balance Example

	Advantages	Disadvantages
Reasons to come to sessions	1. Might help me to be less angry 2. Something to do 3. Someone to talk to 4. Might help me get out of hospital	1. Have to think about difficult things 2. You will make me talk about my feelings
Reasons not to come to sessions	1. I might have better things to do 2. I don't have to talk about my feelings	1. Nothing will change